

Dragooned Into A Joint War: American Airpower in the Mediterranean  
and Operation Dragoon

BY

RYAN A. LINK

THESIS PRESENTED TO THE FACULTY OF THE SCHOOL OF  
ADVANCED AIR AND SPACE STUDIES FOR COMPLETION OF  
GRADUATION REQUIERMENTS

SCHOOL OF ADVANCED AIR AND SPACE STUDIES  
AIR UNIVERSITY  
MAXWELL AIR FORCE BASE, ALABAMA  
JUNE 2009

| Report Documentation Page   |                                    |                                     |  | Form Approved<br>OMB No. 0704-0188       |                                 |
|---|------------------------------------|-------------------------------------|--|--|---------------------------------|
| Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.  |                                    |                                     |  |  |                                 |
| 1. REPORT DATE<br><b>JUN 2009</b>   |                                    | 2. REPORT TYPE<br><b>N/A</b>        |  | 3. DATES COVERED<br><b>-</b>             |                                 |
| 4. TITLE AND SUBTITLE<br><b>Dragooned Into A Joint War: American Airpower in the Mediterranean and Operation Dragoon</b>  |                                    |                                     |  | 5a. CONTRACT NUMBER                      |                                 |
|   |                                    |                                     |  | 5b. GRANT NUMBER                         |                                 |
|   |                                    |                                     |  | 5c. PROGRAM ELEMENT NUMBER               |                                 |
| 6. AUTHOR(S)  |                                    |                                     |  | 5d. PROJECT NUMBER                       |                                 |
|   |                                    |                                     |  | 5e. TASK NUMBER                          |                                 |
|   |                                    |                                     |  | 5f. WORK UNIT NUMBER                     |                                 |
| 7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)<br><b>School Of Advanced Air And Space Studies Air University Maxwell Air Force Base, Alabama</b>  |                                    |                                     |  | 8. PERFORMING ORGANIZATION REPORT NUMBER |                                 |
| 9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)   |                                    |                                     |  | 10. SPONSOR/MONITOR'S ACRONYM(S)         |                                 |
|   |                                    |                                     |  | 11. SPONSOR/MONITOR'S REPORT NUMBER(S)   |                                 |
| 12. DISTRIBUTION/AVAILABILITY STATEMENT<br><b>Approved for public release, distribution unlimited</b>   |                                    |                                     |  |  |                                 |
| 13. SUPPLEMENTARY NOTES<br><b>The original document contains color images.</b>  |                                    |                                     |  |  |                                 |
| 14. ABSTRACT<br><b>This study comprises an analysis of the evolution of joint operations in the Mediterranean Theatre of Operations during World War II. The author uses Operation Dragoon as a lens to evaluate the success of the evolution of joint and combined air-ground doctrine in the Mediterranean. The first chapter looks at American and British air strategy from the Battle of Britain to the end of Anzio in Italy. In this chapter, the reader will witness the evolution of American joint doctrine through the lens of airpower. The second chapter begins the focus on Operation Anvil/Dragoon by looking at the grand strategic battle over the fate of the invasion. The third chapter looks at joint operational planning in preparation for the invasion. This chapter draws on original source documents and concludes that the planning was far from perfect. Finally, the last chapter looks at Operation Dragoon from the tactical level through an analysis of the Battle of Montelimar. In this chapter, the reader will see significant problems in air-ground coordination even after three years of heavy fighting in the same theatre. The papers conclusion is that although the Americans thoroughly evolved in their joint doctrine in the Mediterranean Theatre, in the end there were problems in both planning and executing the joint and combined fights that are still relevant today. The reader will see haunting echoes of the current debates about planning for Operation Anaconda and the Fire Support Coordination Line (FSCL) in Operation Desert Storm.</b> |                                    |                                     |  |  |                                 |
| 15. SUBJECT TERMS   |                                    |                                     |  |  |                                 |
| 16. SECURITY CLASSIFICATION OF:   |                                    |                                     | 17. LIMITATION OF ABSTRACT<br><b>SAR</b> | 18. NUMBER OF PAGES<br><b>89</b>         | 19a. NAME OF RESPONSIBLE PERSON |
| a. REPORT<br><b>unclassified</b>  | b. ABSTRACT<br><b>unclassified</b> | c. THIS PAGE<br><b>unclassified</b> |  |  |                                 |



## **APPROVAL**

The undersigned certify that his thesis meets masters-level standards, argumentation, and expression.

---

ROBERT EHLERS (Date)

---

RICHARD R. MULLER (Date)

## **DISCLAIMER**

The conclusions and opinions expressed in this document are those of the author. They do not reflect the official position of the US Government, Department of Defense, the United States Air Force, or Air University

## ABOUT THE AUTHOR

Major Ryan Link received a regular commission in the United States Air Force after graduating from the United States Air Force Academy in 1996. After completing Joint Undergraduate Pilot Training at Vance AFB, OK he served as a B-52H pilot in the 20th Bomb Squadron, Barksdale AFB, LA. Major Link then attended Air Education and Training Command Pilot Instructor Training in 2001. He was a T-38A instructor pilot at Vance AFB, OK before his acceptance into the Air Force Intern Program. While in the Intern Program, Maj Link completed a masters degree from The George Washington University while working in Joint, Secretary of Defense, and Air Staff offices. Maj Link returned to the cockpit in July of 2005 at Whiteman AFB, MO. After completing training, Maj Link served as a B-2A Instructor Pilot and a T-38A Evaluator Pilot. In June 2009, after completing SAASS, Maj Link was assigned to the strategy division of the 608th Air Operations Center, Barksdale AFB, LA.

## ACKNOWLEDGEMENTS

This thesis would not have been possible without the guidance and direction I received from my advisor Colonel Rob Ehlers and my reader Doctor Richard Muller. Their constant encouragement kept me focused on mission accomplishment. I have learned more about research and writing than I thought possible and I am truly grateful for their mentoring. Most importantly, I would like to express my gratitude for the support of Alice. From the crash to the thesis, you never had a doubt.

## ABSTRACT

This study comprises an analysis of the evolution of joint operations in the Mediterranean Theatre of Operations during World War II. The author uses Operation Dragoon as a lens to evaluate the success of the evolution of joint and combined air-ground doctrine in the Mediterranean. The first chapter looks at American and British air strategy from the Battle of Britain to the end of Anzio in Italy. In this chapter, the reader will witness the evolution of American joint doctrine through the lens of airpower. The second chapter begins the focus on Operation Anvil/Dragoon by looking at the grand strategic battle over the fate of the invasion. The third chapter looks at joint operational planning in preparation for the invasion. This chapter draws on original source documents and concludes that the planning was far from perfect. Finally, the last chapter looks at Operation Dragoon from the tactical level through an analysis of the Battle of Montelimar. In this chapter, the reader will see significant problems in air-ground coordination even after three years of heavy fighting in the same theatre. The paper's conclusion is that although the Americans thoroughly evolved in their joint doctrine in the Mediterranean Theatre, in the end there were problems in both planning and executing the joint and combined fights that are still relevant today. The reader will see haunting echoes of the current debates about planning for Operation Anaconda and the Fire Support Coordination Line (FSCL) in Operation Desert Storm.



## CONTENTS

| Chapter  | Page |
|--|------|
| DISCLAIMER_____  | ii   |
| ABOUT THE AUTHOR_____                                  | iii  |
| ACKNOWLEDGEMENTS_____                                  | v    |
| ABSTRACT_____  | vi   |
| INTRODUCTION_____                                      | 1    |
| 1 ALLIED AIR DOCTRINE: BATTLE OF BRITAIN TO ANZIO_____ | 4    |
| 2 GRAND STRATEGIC DEBATE: THE FIGHT FOR ANVIL_____     | 35   |
| 3 OPERATIONAL PLANNING: PROBLEMS AGAIN_____            | 47   |
| 4 TACTICAL FIGHT: THE BATTLE OF MONTELIBAR_____        | 63   |
| 5 CONCLUSION_____                                      | 73   |
| BIBLIOGRAPHY_____                                      | 76   |

## ILLUSTRATIONS

|   | Figure |
|---|--------|
| 1 Organization of the Army Air Forces: March, 1942_____   | 15     |
| 2 Tactical Control Channels of Air Support Command_____   | 17     |
| 3 Casablanca-Conference_____                              | 24     |
| 4 Organization of the Mediterranean Allied Air Force_____ | 35     |
| 5 Disposition of German Troops on 15 August 1944_____     | 53     |

## Introduction

This paper is about joint warfare. Unlike most papers about jointness; however, it is not primarily concerned with the tactical-level results of individual battles. Rather, it focuses on the evolution of joint organizations through the results of planning and waging a war. While the results of individual battles are an important gauge of how well services fought together, they are more enlightening when understood as the end of an evolving continuum. The results of battles are determined years before they start, when leaders begin to evolve their organizations to cope with new realities. This paper's thesis is that even in the best of situations, joint warfare takes time and dedication to achieve, and even then, the results are often less than optimal.

This paper rests on the foundational point that in order for a military force to be truly joint, it must be so from the grand strategic to the tactical level. Studies of joint warfare assume that an effective joint fight occurs only when one component of the military overshadows others with the centrality of its mission; one service has a need and the others either have a lesser role or simply do not care. While this sometimes is the case, this analysis tends to oversimplify the results of battles because it is too tempting to lay the blame, or praise, on only one doorstep. It is easy to fall prey to the belief that if one of the services were just a little more "joint," then the outcomes of battles would be certain. Contrary to this opinion, military leaders care a great deal for the other services' needs and go to great lengths to integrate into the larger mission. The reality is that the ability to wage a joint war may not rest in the decisions of military commanders because politics also play a role. The true difficulty of a joint war resides in the fact that a military force must be "joint" from the grand strategic to tactical levels. Military and civilian leaders must integrate efforts at all levels of war. This presents military leaders with an immense problem because if any one of

the levels fails to be completely integrated, then the entire construct may be in peril.

There is significant disagreement within the United States military concerning the role of airpower in major joint operations. The disagreement centers around the persistent belief that airpower advocates fail to understand the need for joint warfare. Essentially, zealots in other services put forth that Airmen have a long history of failing to support others. The disagreement manifests itself in two primary ways. First, there is a lack of an agreed-upon, informed, and coherently constructed joint airpower doctrine. Second, military commanders continuously debate the appropriate balance of planning for air supremacy while executing a combined-arms operation supporting ground forces. This debate and its proposed solutions are not new; they are, in fact, nearly as old as the airplane. While many wish to focus on early airpower zealots such as Douhet, Trenchard, and Mitchell for proof of a parochial “service attitude,” the reality is that the vast majority of Airmen strive for a joint solution to warfare.

Often, a distant historical study of military operations is appropriate because debate about current military operations is too charged. No matter the honesty of any study focused on recent events, one side will generally dismiss the conclusion as partisan. Bickering over Operation Anaconda illustrates the plethora of partisan opinions attached to recent and current operations. In spite of these pitfalls, it is necessary to study combined-arms operations. As a means for sidestepping this seemingly inevitable interservice hostility, a study of history often proves both illuminating and less acrimonious. At the risk of declaring the conclusions “irrelevant” due to the passage of time, an informed military strategist quickly understands the value of historical study. Its value resides in the cyclical nature of American military endeavor. This paper, using the air campaign in the Mediterranean during World War II, culminating with Operation Dragoon, provides an

illuminating study. In this theatre, airpower's potential to assist the conduct of joint operations, and the evolution of an overall combined-arms construct, evolved from the ground up as a result of intense combat lasting over four years. The unique air-sea-land nature of Mediterranean warfare made it the ideal proving ground for combined operations. Overall, the Allies did quite well in the Mediterranean, but there was room for improvement.

This paper will pull apart the interaction of the different services on three levels. The first level of analysis is that of doctrine, strategy, and command structure in the Mediterranean. A study at this level illuminates the history for creating the planning system in place at the time of Operation Dragoon and identifies the organizational process leaders felt would best facilitate large, combined operations<sup>1</sup>. The second level is that of operational planning, which allows a look at service capabilities, preconceived paradigms, and institutional norms. The third level examines the tactical results of planning and organizational constructs. This final level illuminates the effects of command relationships on joint operations and the less-than-optimal, yet generally effective, results that inevitably arise. For the most part, records of these interactions reside in archives. To this end, we must first conduct a survey of original and secondary sources.

While studying these different levels the paper will answer each of the following questions: 1) How did the Allies develop joint operational constructs; 2) how did they plan operationally for an Allied combined-arms effort and what were the restrictions placed on them; 3) what were

---

<sup>1</sup> For the purposes of this paper, I use the terms the terms "joint" and "combined" consistent with their definitions in the Merriam-Webster dictionary. While the difference in meaning between the two words may be small, in terms of warfare they are great. Joint is the successful combination of functions within a specific nation's military. Combined is the successful combination of functions among different nation's militaries. A combined-arms operation is the successful integration of all available military functions to achieve a unified purpose on a battlefield.

the consequences of their planning decisions? The paper will then come to conclusions and offer suggestions to improve future joint operational planning.

While this paper uses an airpower lens, and the author is an Air Force officer, the purpose is to encourage a broad understanding of the combined-arms evolution of joint operations and to try to set a benchmark for realistic expectations. This paper sacrifices depth in order to gain a broader understanding of combined arms. In this thesis, there are relatively few documents detailing the evolution of combined-arms operations in other theaters and the evolution of other services' combined-arms approaches. In other theaters, the emergence of a combined-arms doctrine may have proceeded more rapidly or evolved differently. This is by no means an exhaustive study, and I did not design it to be one. Nonetheless, this paper challenges many misconceptions about the genesis of combined-arms doctrine and provides clear parallels to problems our commanders are experiencing in today's armed conflicts.

## Chapter 1

### ALLIED AIR DOCTRINE: BATTLE OF BRITAIN TO ANZIO

#### **Introduction**

Currently, there are a number of competing views regarding the role of airpower in joint warfare. Some strategists believe airpower is always in a support role while others feel that airpower is a decisive force designed to operate on its own. The inability to reach a consensus continues to drive vigorous debate.

In order to help clarify some of the arguments, it is necessary to understand the origins of today's combined air-ground construct. The genesis of this construct occurred on the shores of North Africa. This chapter follows the evolution of airpower doctrine from daylight strategic bombing, developed largely at the Air Corps Tactical School (ACTS), to a truly joint airpower construct developed in the Mediterranean during World War II. Indeed, air power would prove significant in World War II, but only after the cold reality of battle proved many either of the original theories wrong or in need of revision. While revisions began almost immediately, two years of hard-fought combat actions passed before American and Allied airpower doctrine matured.

Depending on a given strategist's bias, he can draw lessons from the Mediterranean that either show how Airmen advocated combined-arms operations or how they resisted them. This parochialism has no place in this chapter. Rather, it focuses on the larger issue that joint and combined war fighting are difficult and take many months of dedication and sacrifice, on all sides, to make them work correctly. In the future, the American military may not have the luxury of a tremendous amount of time and overwhelming material superiority, making effective planning and operational capabilities paramount.

## **Development of Doctrine and Organizational Structure**

American air power made significant theoretical and doctrinal advances during the interwar period. Militaries no longer relegated airpower to observation and support of artillery. The rapid onslaught of the German army and the ensuing trench warfare of World War I frightened Americans and forced the military to search for solutions to the trench stalemate. Airmen felt they could now fashion, according to theorists such as Douhet, Trenchard, and Mitchell, quick and decisive battles that would prevent armies from repeating the stagnant battles of the Great War—or so they thought. The bombing doctrine developed at the ACTS in the 1930's, seemed well suited to prevent future trench warfare. The Airmen's basic strategy involved a strategic bombing offensive, utilizing heavy bombers, to attack key industrial centers deep in the enemy's territory. If successful, this air strategy would decisively beat the enemy and relegate the Army to cleanup duty. This was how many Airmen, and especially the ACTS "airpower zealots," hoped to conduct the air war—and indeed shape the course of the conflict—during World War II.

After the start of the Second World War, the lessons American and British air leaders drew from the failure at Dunkirk reinforced their pre-war belief that strategic bombing could win the war. As the Germans continued their advance throughout Europe, they maintained their air assets as a separate striking force, but one very closely coordinated with their ground forces. After the success of the German combined-arms attacks on the Low Countries, they moved their two air fleets, supporting the German advance, en masse towards France. In an attempt to counter the German advance into France, the British put both an army and Royal Air Force (RAF) component in France. Instead of using the RAF independently to strike at the Germans during the anticipated spring attack, the British Air Ministry put all RAF aviation under one army commander on 15 January 1940. This individual was then to use

the RAF in support of ground armies. The doctrinal concept of combining ground and air arms under one commander, which had served the Germans well, failed the British because of poor doctrine development, operational planning, organizational structure, and execution in the field. As a result, the Germans forced the British to evacuate their armies at Dunkirk. Although the move to use the air and land components together would ultimately prove to be a linchpin in Allied strategy, the “lesson” learned after the debacle of Dunkirk was to use the two forces independently. In June of 1940, Lieutenant General Delos Emmons, a military observer in Great Britain, advised General Henry Arnold that the British made a mistake developing a force of interceptors and light bombers, forcing them to use them defensively and in concert with the Army during the debacle.<sup>2</sup> He advised that had the British developed a stronger bomber force it could have attacked the German supply columns feeding Dunkirk. General Emmons suggested that to avoid future disasters like Dunkirk the Americans should increase the size of their bomber force.

The Battle of Britain also reinforced Americans’ belief in strategic bombardment. Colonel Carl Spaatz and Major General Emmons, while acting as military observers in London, arrived at several conclusions during the battle. They concluded that the failure of the German air offensive resulted from poor air discipline, not having proper capabilities for heavy bombing attacks, and pursuit fighters that were unable to gain control of the air over England.<sup>3</sup> Spaatz noted that by dispersing their fighters, the British had disproven the American theory that it was easier to destroy an air force on the ground before it could take off. Instead, he

---

<sup>2</sup>Robert Frank Futrell, *Ideas, Concepts, Doctrine: A History of Basic Thinking in the United States Air Force 1907-1964. Volume I* (Maxwell AFB, AL: Air University Press, 1989), 98.

<sup>3</sup> Carl A. Spaatz, Gen Ret. “Leaves from My Battle of Britain Diary,” *The Air Power Historian* 4, January 1957, 66-75.



argued, it was easier for the Americans to destroy an enemy air force in the air with massive firepower emanating from heavy bomber aircraft. Spaatz attributed the frightful German losses to the fact that they created the Luftwaffe to work only with the army. Spaatz reasoned that the Germans had not created a real air force and would not attack a well-defended bomber formation. Spaatz's conclusion was that the Americans should increase their production of four-engine bombers. Both Spaatz's and Emmons' conclusions were probably faulty because they did not know about a very effective top-secret program greatly assisting British execution of the air war: radar.<sup>4</sup> Although his observers were very enthusiastic about heavy bombers, General Arnold was a little more circumspect about strategic bombing when he stated that "the Air Corps might well have to conduct the bulk of its bombardment operations at night."<sup>5</sup> However, at this point, British and German experiences during the Battle of Britain ensured the Allies would continue to pursue an air effort focused on strategic bombing.

General George C. Marshall, along with Arnold, felt that more than four-engine bombers were necessary for an effective campaign against the Germans. Nonetheless, Airmen's support for strategic bombardment had a great effect on the Air Corps' initial procurement decisions. On 12 July 1940, the Joint Army-Navy Board, with the approval of Secretary Stimson, expanded the Army Air Corps (AAC) to 54 combat groups and 4006 aircraft.<sup>6</sup> This procurement decision is now known as the First Aviation Objective and it included an increase to 14 heavy bombardment

---

<sup>4</sup> Memorandum from Maj Gen Delos C. Emmons to chief of staff, Army, 25 September 1940; Letter from Col Carl A. Spaatz and Col Frank O'D. Hunter to Military Intelligence Division, War Department General Staff, Organization Headquarters Fighter Group, 21 August 1940.

<sup>5</sup> Letter from Maj Gen Henry H. Arnold to chief, Ordnance, Urgency of Bombing Flare Development, 7 Sep 1940.

<sup>6</sup> Irving B. Holly, Jr., *Buying Aircraft: Material Procurement for the Army Air Forces, US Army in World War II* (Washington, D.C.: U. S. Government Printing Office, 1964), 226-228.

groups. Congress and the National Defense Advisory Board questioned the procurement decisions of the First Aviation Objective, which focused heavily on four-engine bombers. General Arnold and Assistant Secretary of War Robert P. Patterson explained that the four-engine bomber was necessary for the strategic mobility and range it afforded in hemispheric defense.<sup>7</sup> Although General Marshall agreed with the assertion that a larger four-engine bomber force was necessary, he pushed up the timeline for the AAC force increase. Marshall demanded that more Ju 87-like dive-bombers, used in support of ground troops during joint operations, be included in the procurement request.<sup>8</sup> As a result, on 14 March 1941 the War department approved the amended AAC plan, the Second Aviation Objective, which included 12 groups of dive-bombers for combined-arms operations. Americans were beginning to understand the value of preparing for a combined-arms war.

At the beginning of 1941, both the British and the Americans realized that it was time for them to begin discussing a combined strategy for the war. It was natural for these two countries to focus on a combined overall air strategy given their heavy reliance on airpower. On 29 January 1941, the American British Conference 1 (ABC-1) convened in Washington D.C. During the conference both the Americans and the British expressed a belief in the decisiveness of strategic bombardment and, further, that airpower was the only means Americans had to contribute quickly to the fight. ABC-1 stated that a sustained air offensive against Axis controlled areas was an essential part of the overall strategy of a land invasion of the mainland of Europe. It was important to establish forward bases in Europe for supporting the American airpower build-up. President Roosevelt and Secretary for War Stimson, enthusiastic about airpower, agreed that they must not lose any initiative

---

<sup>7</sup> Letter from Robert P. Patterson, Assistant Secretary of War to William S. Knudsen, Four Engine Bombers, 17 October 1940.

<sup>8</sup> Robert Frank Futrell, *Ideas, Concepts, Doctrine*, 102.

associated with a combined American and British air offensive would provide.<sup>9</sup> While ABC-1 did not formally create an alliance between Britain and America, it did significantly contribute to American thinking about the appropriate structure for wartime cooperation with Britain. Ultimately, Airmen felt a combined invasion of Europe could be avoided with the bomber.

The first independent American airpower strategy also occurred at this time. President Roosevelt felt that the German victories in Europe required a significant increase in American military might. On 9 July 1941, he called for “overall production requirements required to defeat our potential enemies.”<sup>10</sup> In response, on 14 August 1941, the War Department quickly submitted a production requirements plan to defeat both the Japanese and the Germans. The Air Corps included, as an appendix to this plan, a list of production requirements. This appendix, which became known as AWPDP-1, was not only a list of aircraft and personnel production and training figures, but also the nucleus of a general air strategy based on the idea of victory through the strategic bombardment of Germany.<sup>11</sup> The AAC now had a presidentially approved procurement plan and a general air strategy to defeat the Germans with strategic bombers.

The approval of AWPDP-1, and its air strategy, helped the AAC with its struggle for autonomy. This struggle was nothing new and started immediately following the end of World War I. The struggle created great acrimony with both ground and air leaders. Strategic bombing had always been the benchmark argument for a separate air arm. If airpower

---

<sup>9</sup> Richard J. Overy, *The Air War, 1939-1945* (Washington, D.C.: Potomac Books, 2005), 61.

<sup>10</sup> Wesley Frank Craven and James Lea Cate, ed. *The Army Air Forces in World War II Europe Vol. I: Plans and Early Operations, January 1939 to August 1942*. (Chicago, IL: The University of Chicago Press, 1948), 131, 139-144.

<sup>11</sup> Haywood S. Hansell, *The Air Plan That Defeated Hitler*, (Washington, D.C.: U. S. Government Printing Office, 1975), 100, 102-103.

proved as effective as the interwar theorists and wartime Airmen claimed, then there was no doubt that the air arm should be separate and controlled by Airmen. AWPD-1 and ABC-1 both proved to Airmen that top generals and, more importantly, the President supported their drive for autonomy. The air plan was an excellent start, but the Army's organization also needed to change.

The AAC felt there was a persistent inequality with the ground component and while AWPD-1 marked an important milestone, the service itself demanded organizational changes. Airmen identified their opportunity for organizational change when General Marshall wished to de-centralize the War Department General Staff. The staff had control over the staffing process, and Marshall was unable to move critical information and make timely decisions. Initially, on 26 July 1940, a decentralized field General Head Quarters (GHQ) received command over the GHQ Air Force. Essentially this change created confusion in the chain of command because there could be two generals of equal rank in charge of both GHQ Air Force and the AAC. Although the War Plans Division sought to assure General Arnold that this would provide no substantial change in the relationship of the heads of the Air Corps and GHQ Air Force, he proposed his own change. Arnold argued that there should be three separate Army deputy chiefs of staff, one for air, ground, and the service as a whole. The War Department General Staff had a dim view of this plan. They stated that, "the Air Corps believes that its primary purpose is to defeat the enemy air force and execute independent missions against ground targets. Actually, its primary purpose is to assist the ground forces in reaching their objective."<sup>12</sup> In spite of this resistance, and with Marshall's real but somewhat qualified support on 20 June 1941, the War Department created the AAF with a

---

<sup>12</sup> Robert Frank Futrell, *Ideas, Concepts, Doctrine*, 103.

revised Army Regulation 95-5.<sup>13</sup> In this operational structure, the Air Corps and the General Head Quarters Air Force were the major components with an Air Staff and Arnold as the Chief of Staff. However far this moved the AAC towards autonomy, the organizational structure had significant command-and-control problems. To remedy the problems, the air arm had to reorganize. The Army addressed the need for reorganization when it issued War Circular 59 on 9 March 1942. The Army further subordinated the AAC to the AAF and eliminated the office of Chief of Air Corps. In addition, Arnold, as the Commanding General of the AAF, became an equal member of the World War II Joint Chiefs of Staff. Although the AAF finally received autonomy and recognition, there were too many confrontations with ground commanders to get to this point in practice, and the already-poor relations became worse.

While new AAF leaders did not completely ignore the issue of air support and coordination with ground forces, there was little agreement about how to proceed. On 9 April 1942, the War Department published Field Manual 31-35, *Aviation in Support of Ground Forces*. It provided exactly the opposite of Army Regulation 95-5, stating that the air support commander would operate under the Army commander. Aviation units were “specifically allocated to the support of the subordinate ground commander” who could make decisions on target priorities.<sup>14</sup> According to the manual, the target receiving the highest priority was the one that most threatened the ground forces. Essentially, this put all air assets not engaged in strategic bombing, i.e. tactical aircraft, under the control of the local ground commander. Even though the Army constructed the manual from lessons learned after joint air and ground maneuvers, they

---

<sup>13</sup> His support was real but also somewhat qualified in the sense that he never approved the bomber zealots’ view of things. He did approve autonomy, but he also ensured the AAF eventually developed a combined-arms capability.

<sup>14</sup> U. S. Army Field Manual 31-35, *Aviation In Support of Ground Forces*, 9 April 1942, 3.

never approved it even after revision.<sup>15</sup> The failure to address the cornerstone issue of command relationships would have serious consequences during the first years of the war.

In August 1942, AWPD-42 replaced AWPD-1, demonstrating more of the same mentality by air leaders: winning the war with strategic bombing and if not eliminating the need for a ground campaign, then setting the stage for a ground invasion. Again, like AWPD-1, AWPD-42 was more than a procurement plan and was in effect an overall air strategy. Although the document ultimately proved overly optimistic about strategic bombers' ability to strike targets without fighter support, at this time there was good reason for the Allies' desire to focus on strategic bombing. The German army was very powerful and the Allied army was not. AWPD-42 would allow the Allies to strike at Germany without needing a superior land force:

By the time that the air forces contemplated in this study are ready for employment, it is likely that large Axis ground forces will be released from the Russian front for employment elsewhere. Under these circumstances, the ground forces of the United Nations will be numerically inferior to the Axis ground forces of Europe. If our ground forces, while numerically inferior are to defeat the seasoned troops of the Axis in Europe, then circumstance must be created to make this possible. Our numerically superior air forces must deplete the air forces of the enemy and undermine the structure which supports his surface forces.<sup>16</sup>

The strategic bombing focus of AWPD-42 had two ramifications for conduct of the war. First, it denied the Allies the ability to coordinate air and ground strategies if the land invasion of Europe were to occur.

---

<sup>15</sup> Robert Frank Futrell, *Ideas, Concepts, Doctrine*, 133.

<sup>16</sup> Haywood S. Hansel, *The Air Plan that Defeated Hitler*, p.102-103. This does not sound like victory from the air, but rather a combined effort. Hansell believed bombing could win the war, but the way in which he phrases this indicates both a recognition that a combined effort would ultimately be required, and a tempering of the zealot. Of course, he was also quite able to see what Marshall, Eisenhower, and the CCS felt about this issue: bombing would not win on its own.

# ORGANIZATION OF THE ARMY AIR FORCES

## MARCH, 1942

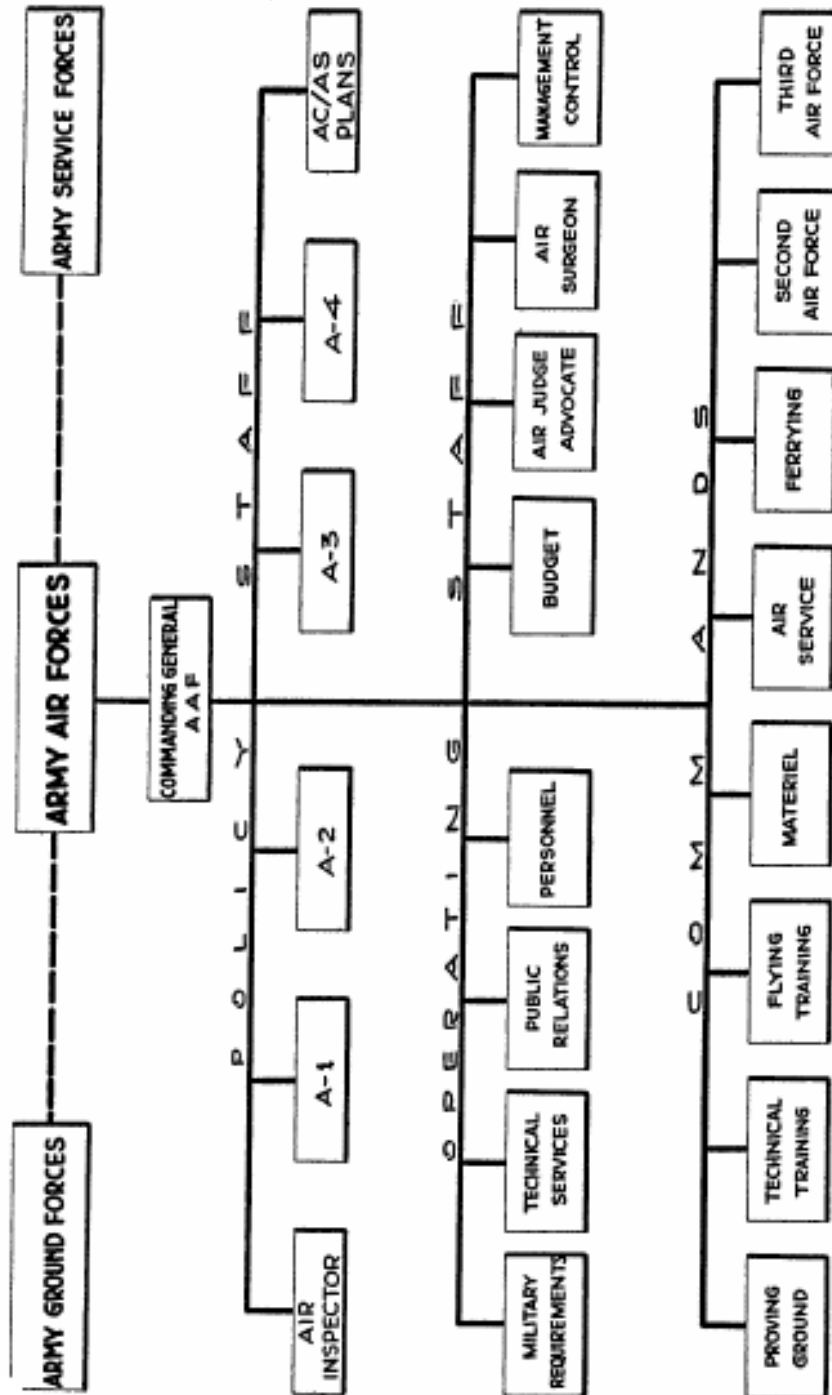


Figure 1: Organization of the Army Air Forces: March, 1942.

<sup>17</sup> Wesley Frank Craven and James Lea Cate, ed. *The Army Air Forces in World War II Europe Vol. I*, 263.

Second, it ensured the American military was not prepared to fight jointly when it was time for the invasion of North Africa. In fact, although quite by accident, the document probably further increased the distance between the Air Force and the Army because of a lack of coordination even before President Roosevelt approved it.<sup>18</sup>

Even if American Airmen and their British counterparts in RAF Bomber Command wanted to bomb their way to victory, pressures were mounting that would force them to contemplate supporting a land invasion. During the spring of 1942, Eighth Air Force, with presidential approval, prepared for a bombing campaign that would originate out of England and strike German war industry. However, by the summer of 1942, the situation changed. The Russians were fighting a bloody war in the east and it looked as though they may lose. In addition, as the British were suffering devastating setbacks in North Africa, the Germans were still just across the English Channel. Roosevelt finally conceded that a land invasion might be necessary. The original push from the Americans was for a cross-Channel invasion of the continent. Churchill derided this plan because he knew that the Allie army was not ready for such a bold maneuver and risked defeat. Churchill knew that such a defeat would almost guarantee an Axis victory. Eventually President Roosevelt conceded that an invasion of Africa had the best chance for success while allowing the Allies to demonstrate to the Soviets that they were going on the offensive.<sup>19</sup> North Africa was the best place for the new American army to gain experience, and it was not the first time the Americans had worked with the British in this theater.<sup>20</sup>

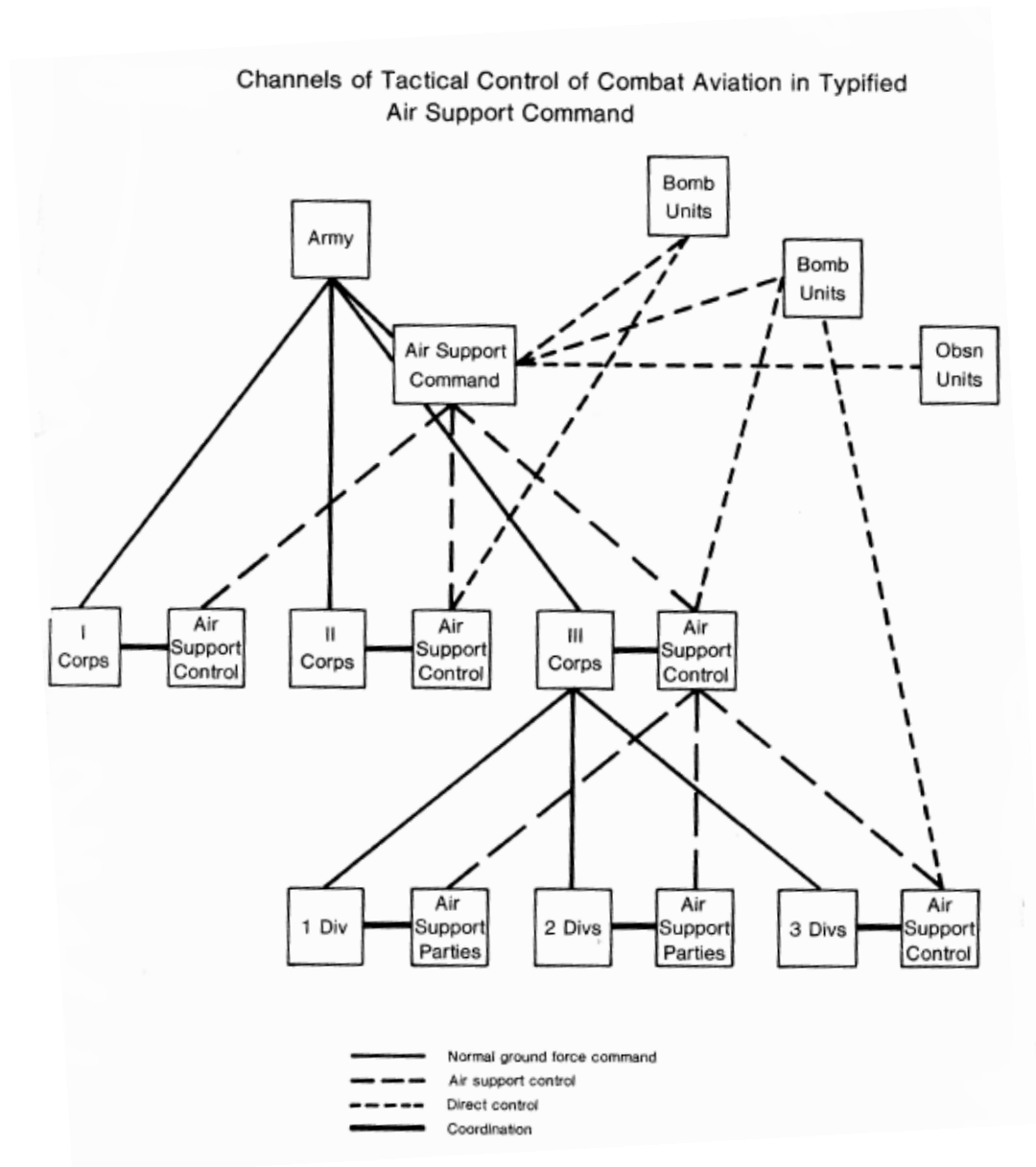
---

<sup>18</sup> Haywood S. Hansel, *The Air Plan that Defeated Hitler*, p101-102.

<sup>19</sup> Francis L. Loewenheim, Harold D. Langley, Manfred Jonas, ed. *Roosevelt and Churchill: Their Secret Wartime Correspondence*, (New York, NY: Saturday Review Press, 1975), 222-225.

<sup>20</sup> Daniel R. Mortensen, *A Pattern for Joint Operations: World War II Close Air Support , North Africa* (Washington, D.C: U. S. Government Printing Office, 1987), 47.





21

Figure 2: Tactical Control Channels of Air Support Command

### The British

In North Africa, the British soon understood the need for a joint air-ground strategy. After the start of World War II and as stated in ABC-1, the British knew they would have to prevent the Italians from trying to make further territorial bids in Africa. British troops in Egypt

<sup>21</sup>Daniel R. Mortensen, A Pattern for Joint Operations, 21.

needed supplies to ensure they were able to confront not only the Italians, but also Rommel and his Afrika Korps. Many of the supplies and war material for North Africa came from the Americans, and the British quickly learned how to integrate them. Although initially the British were unable to support ground troops with air assets, they learned that the key was a co-equal ground and air command arrangement.<sup>22</sup> Their growing expertise proved crucial to future American improvements in air-ground cooperation at the tactical and operational levels<sup>23</sup>.

The Americans' first observation of effective air-ground coordination occurred while ferrying supplies to the British in North Africa. In June of 1942, the British were having a tough time fighting Rommel and his Italian allies. The Americans began ferrying supplies from North America to Egypt via the Red Sea. These supplies included medium bombers for use by both British and American aircrews. While officially ferrying supplies to the British, the United States Middle East Air Force (MEAF), later known as the Ninth Air Force, fought alongside the British from August to October 1942. At this time, the war in North Africa was a British-led effort. All the Americans could offer was support from the air. General Lewis Brereton absorbed the British ideas on air-ground coordination and used B-24Ds, originally intended and already used once for bombing the Ploesti oil fields, against Rommel's ground forces.<sup>24</sup> Brereton understood that the success of the British combined-arms effort in North Africa rested on the co-equal status of both the

---

<sup>22</sup> Daniel R. Mortensen, *A Pattern for Joint Operations*, 48-49.

<sup>23</sup> Wesley Frank Craven and James Lea Cate, ed. *The Army Air Forces in World War II Europe Vol. I*, 340.; Richard P. Hallion, *Strike From the Sky: The History of Battlefield Air Attack, 1911-1945*, (Washington D.C.: Smithsonian Institution Press, 1989), 149-158.

<sup>24</sup> Wesley Frank Craven and James Lea Cate, ed. *The Army Air Forces in World War II Europe Vol. I*, 340.

ground and air component commanders.<sup>25</sup> This allowed British Airmen and Brereton, who led MEAF, to take advantage of air power to gain air superiority. Once that was accomplished, Airmen could then interdict enemy supply and troop movements instead of being tied down and fragmented in direct support of specific ground formations. Ultimately, Brereton sent a letter to General Arnold about the significance and success of the British air-ground arrangement.<sup>26</sup> Although General Arnold was aware of this, the AAF as a whole did not significantly change its pattern of operations.<sup>27</sup> Although some Americans were awakening to the idea of a combined air-ground strategy, Airmen were still focused on strategic bombing.

The AAF still did not significantly alter its wartime doctrine during this time for philosophical and political reasons. Nonetheless, the support of ground forces benefitted from airpower's inherent flexibility. Airmen could re-task heavy bombers intended to bomb industrial targets to support ground armies, even if the Americans probably viewed the British effort west of Cairo as a one-time situation where air power had to bail out the British army before it was defeated. In addition, the larger war was on the European mainland. The Americans viewed a bombing campaign against Germany as the key to ending the war, while North Africa was just a sideshow. The Americans still felt that the key to defeating Germany was with heavy bombers in direct assaults on a European continent where the Allies could not yet employ ground forces. Overall, American Airmen still could not yet bring themselves to focus on using airpower in support of land forces.

---

<sup>25</sup> Craven, Wesley Frank and James Lea Cate, ed. *The Army Air Forces in World War II*, Vol. 2, *Europe, Torch to Pointblank August 1942 to December 1943* (Chicago, IL: The University of Chicago Press, 1949), 28.

<sup>26</sup> Daniel R. Mortensen, *A Pattern for Joint Operations*, 49.

<sup>27</sup> Craven, Wesley Frank and James Lea Cate, ed. *The Army Air Forces in World War II*, Vol. 2, 164.

Because the larger war was in the north, the realities of the situation in England also prevented Airmen from significantly altering air strategy. At the beginning of the war, there simply was too much demand on men and material. In order to stand up a new air force for Operation TORCH—the invasion of North Africa—Eisenhower had to strip many personnel and aircraft from Eighth Air Force. Doing so would mean moving personnel deeply immersed in preparing for strategic bombing and a cross-channel invasion to support the TORCH landings. Eisenhower's move, at the recommendation of Doolittle and Spaatz, ensured Airmen would have the best possible indoctrination, training, and, most important, combat experience. However, another problem soon appeared. While the heavy bombardment personnel were prepared, the medium and light groups were not. Again, this was not surprising given the AAF's focus on strategic bombing.<sup>28</sup>

Ultimately, a ground commander focused the AAF on the need to integrate with the ground forces during. In October 1942, Eisenhower issued a directive called "Combat Aviation in Direct Support of Ground Troops." It may seem odd that, on the eve of the invasion, the ground commander would issue a directive about how airpower should support the invasion, but in today's parlance he acted more like a Joint Task Force Commander. This measure was necessary, as neither the AAF nor the Army had yet ratified FM 31-35. Battlefield commanders did not have a combined-arms doctrine from which proceed. Eisenhower's directive looked very much like FM 31-35 and British Army Training Instruction No. 6, both of which were, to say the least, controversial among AAF commanders.<sup>29</sup> Although Airmen were unaware, the main problem with this directive was the potential abuse of limited air assets

---

<sup>28</sup> Craven, Wesley Frank and James Lea Cate, ed. *The Army Air Forces in World War II*, Vol. 2, 51.

<sup>29</sup> Allied Force Headquarters Operation Memo no. 17, "Combat Aviation in Direct Support of Ground Units" USAFHRC Doc. 103.2808, 13 Oct 1942.

by ground commanders.<sup>30</sup> Despite the apparent subordination of air to ground, Eisenhower's planners placed the responsibility for targeting and air-support asset allocation on the ground commanders.

The air organization for the invasion evolved during the last few weeks before the invasion and the short timeframe added to the Allies problems effectively combining arms. The group of personnel stripped from Eighth Air Force became 12th Air Force. This group from England combined with personnel sent from training locations in the United States to form the new command. Eisenhower then combined these groups into three components: 12th Bomber Command, 12th Fighter Command, and 12th Air Support Command. Major General James H. Doolittle became commander of 12th Air Force. While it would support the theater, 12th Air Support Command's first priority was supporting the ground forces of Fifth Army.<sup>31</sup> Eisenhower agreed and stated that 12th Air Force should employ both "strategic and tactical" assets against the enemy. While the AAF component embarked for Torch was twice as large as the RAF component in the east, (1,244 to 454 aircraft), its role after the invasion remained confused and ineffective because American Airmen did not embrace an air-ground strategy similar to what the British were using.<sup>32</sup>

The combination of failure to think adequately about anything other than strategic bombing and unclear command relationships led to difficulty determining how to prosecute air support of the invasion. Eventually, the intolerable situation between the ground and air components would result in a defeat for the Allies on the battlefield and in the air given the German reinforcement of Tunisia with Fw 190s and other good aircraft, their use of all-weather airfields, and their tactical

---

<sup>30</sup> Allied Force Headquarters Operation Memo no. 17.

<sup>31</sup> Daniel R. Mortensen, *A Pattern for Joint Operations*, 52.

<sup>32</sup> Craven, Wesley Frank and James Lea Cate, ed. *The Army Air Forces in World War II*, Vol. 2, 54.

and operational experience. Despite these initial defeats, President Roosevelt's decision to listen to Churchill in effect made North Africa the perfect battlefield laboratory for the Americans, and they learned fast.

### **From TORCH to the Casablanca Conference**

While we now know that Operation TORCH was a success, on the eve of the 8 November 1942 landings, the result was far from certain. Originally conceived early in the year, the Allies initially named Operation TORCH Operation SUPER-GYMNAST and ROUNDUP before finally settling on its permanent name. General George S. Patton and a force of about 86,000 Americans departed America for a direct deployment to three separate landing locations on the African continent. About 1700 aircraft flew from Gibraltar to provide air support for the invasion force. The ultimate objective of this invasion was to destroy the Axis army in Tunisia. Montgomery's army, already in the eastern desert near Egypt, would attack from the east and the Americans would attack from the west. Operation TORCH was a success and achieved strategic surprise. The untried American army was lucky Vichy French resistance was weaker than anticipated.<sup>33</sup> On 11 November 1942, the Vichy French in North Africa signed an armistice with General Eisenhower and began contributing troops and other assets to the Allied effort.

The initial relative ease of the invasion was not an accurate indication of the difficulties to come. The Germans took notice of the convoys supplying the Allied buildup in North Africa and they too started to increase the flow of supplies and reinforcements. By the end of December, German convoys brought an additional 17,000 men, heavy equipment, and more than 155 combat aircraft to Tunisia.<sup>34</sup> Eisenhower halted the American advance at Medjez-el-Bab. Enemy resistance and the muddy conditions created by heavy rains virtually halted air-support

---

<sup>33</sup> Eduard Mark, *Aerial Interdiction: Air Power and the Land Battle in Three American Wars* (Washington, D.C: U. S. Government Printing Office, 1994), 22.

<sup>34</sup> Eduard Mark, *Aerial Interdiction*, 24.

operations. Airmen tried to build all-weather airfields where none had previously existed. Due to a multitude of problems, the Americans only had three operational airfields, of which the closest was about 70 miles from the front. The combination of mud, lack of American airfields, aircraft, and the German Fw 190 gave the Germans air superiority.

Eisenhower obviously felt the Allies had to do something when he reported that his aircraft had been “insufficient to keep down the hostile strafing and dive-bombing...largely responsible for breaking up all attempted advances by ground forces.”<sup>35</sup> Lieutenant General Kenneth Anderson, Commander of First Army, ultimately took the prerogative afforded him by the un-ratified FM 31-35 and ordered aircraft to fly an “air umbrella” to protect his troops from the Luftwaffe. This move went directly against the autonomy that Airmen felt they needed to succeed. The bickering about coordination of ground and air forces could not continue if the Americans wanted to succeed. They needed to do something to improve Allied fortunes in both North Africa and the Mediterranean theatre.

Probably not surprising to those Americans who supported the British between August and October 1942, the answer to the air control problems came from their allies. Admiral Sir Andrew B. Cunningham felt that the organization of air forces in Tunisia was chaotic.<sup>36</sup> After two years of leadership experience in the desert, Air Chief Marshal Lord Tedder, Commander, RAF Middle East Command, knew what air-ground command organization would work best. He ultimately prevailed on the both the Americans and the Allies to change their command structure.<sup>37</sup>

---

<sup>35</sup> George F. Howe, *Northwest Africa: Seizing the Initiative in the West* (Washington, D.C.: U. S. Government Printing Office), 320.

<sup>36</sup> Vincent Orange, “Getting Together: Tedder, Coningham, and Americans in the Desert in Tunisia, 1940-1943” in *Airpower and Ground Armies: Essays on the Evolution of Anglo-American Air Doctrine*, ed. Daniel R. Mortensen (Maxwell AFB, AL: Air University Press, 1998), 1-44.

<sup>37</sup> Vincent Orange, *Getting Together*, 1-44.

On 5 December 1942, the Americans appointed Spaatz to the position of Eisenhower's Deputy Commander in Chief for Air. On 31 Dec 1942, Eisenhower then proposed that the Allies group all of the air forces in Northwest Africa into a new organization called the Allied Air Force. The British agreed to this proposal but felt that Eisenhower should go further and organize the units by function instead of nationality.<sup>38</sup> This did not happen, but the stage was set for these and future changes to become permanent. The Casablanca conference would address, among other issues, the need for a permanent change to the command relationships between the ground and air components.



39

Figure 3: Casablanca-Conference - Seated: President Roosevelt and Prime Minister Churchill. Standing, front row, left to right: General Arnold, Admiral King, General Marshall, Admiral Pound, Air Chief Marshal Portal, General Brooke, Field Marshal Dill, and Admiral Mountbatten. January 1943

<sup>38</sup> Craven, Wesley Frank and James Lea Cate, ed. *The Army Air Forces in World War II*, Vol. 2, 106-110.

<sup>39</sup> U. S. Department of State, Office of the Historian, *World Leaders at the Casablanca Conference* Available at <http://history.state.gov/milestones/images/casablanca-conference.jpg&imgrefurl> (accessed 6 May 2009).



## **Reorganization at Casablanca**

Operation TORCH provided the first opportunity for senior commanders, many of whom would serve together for the remainder of the war, to try to reach a common understanding about how to proceed. While it seems small in comparison with the decisions reached regarding the unconditional surrender of the Axis powers, the attack on Sicily, and the Combined Bomber Offensive, the decision to reorganize the air-ground command structure would have a profound effect on the remainder of the war.

Up to this point, the war had for the most part been a dismal failure in terms of air-ground cooperation, and something needed to change.<sup>40</sup> The Allies finalized improvements in the Allied command structure, started by Eisenhower less than a month before, at Casablanca. Roosevelt and Churchill appointed Tedder as the lead airman for the entire Mediterranean, subordinate only to Eisenhower. Under Tedder, Lt Gen Spaatz served as the air commander, Northwest Africa. Under Spaatz, Maj Gen Doolittle controlled the heavy and medium bombers with escorts; Air Vice Marshal Hugh Pughe Lloyd commanded reconnaissance and fighters defending shipping and ports; and Air Vice Marshal Coningham controlled air support for ground forces.<sup>41</sup> Air Vice Marshal Coningham and General Alexander would share a headquarters. Each army then had an airman attached to it who was under Coningham's command.

This was a major departure from past operations. The army and air components now had an equal status under Eisenhower. Requests for air assets in support of ground forces would go to Coningham who would, after consultation with the ground commander, make decisions as to which targets to attack. This was especially important when

---

<sup>40</sup> Vincent Orange, *Getting Together*, 27.

<sup>41</sup> Vincent Orange, *Getting Together*, 26.

dealing with a resource like aircraft, which were always in demand and not always available. It seems that most understood that the coordination structure agreed to in Casablanca had a better chance of success than the one proposed in the old FM 31-35. From this moment on, the organization and the men involved proved to be templates for operations throughout the Mediterranean Theater of Operations.

### **Operation Husky: The Invasion of Sicily**

The plan for Operation Husky helped to demonstrate that the Allies had abandoned the idea that airpower alone could win the war while realizing that coordination was necessary. Although the successful bombing of Pantelleria could have given Airmen the leeway necessary to argue for a continued focus on strategic bombing, they resisted the temptation. The air plan issued in May encompassed the organizational changes resulting from the Casablanca conference. In the plan for the invasion of Sicily, gone were ideas of using strategic bombing alone to win the war without air-ground coordination. Instead, the Allies deliberately planned to use airpower in a direct-support role to assist the ground armies.

Consistent with the Allies' relationship to date, the plan for Operation Husky was a compromise. Eisenhower created Task Force 141 to develop the plan for the assault of Sicily that called for an amphibious invasion with assaults on the southeastern and southwestern coasts of Sicily. Task Force 141's plan provided the invasion force air cover from aircraft stationed in Tunisia<sup>42</sup> and four simultaneous landings would seize airstrips and ports to support the main thrust of the invasion at D+2. The British objected to this original plan because they felt that it would prolong the overall battle for Sicily by needlessly splitting Allied forces. Eisenhower finally intervened:

---

<sup>42</sup> Harry L. Coles, Jr., *Participation of the Ninth and Twelfth Air Forces in the Sicilian Campaign*, Army Air Forces Historical Study 37 (Washington, D.C.: Army Air Forces Historical Division, 1945), 3.

On 3 May, we stopped tinkering and completely recast our plan on the sound strategic principle of concentration in the crucial area. I abandoned not only the southwestern assault scheduled for D plus 2, but the assaults west of Palermo on D plus 5 as well, and diverted the entire Western Task Force to the southeastern assault. I deliberately assumed the maintenance and supply risk involved in the sacrifice of Palermo as an immediate objective, because all of us were at last convinced that it was the lesser of two evils.<sup>43</sup>

Eisenhower understood that resources would always be constrained and that the critical aspect of operation Husky was seizing the airfields on the southwest part of the island. Clearly, he recognized the critical need for airpower employed in a joint effort.

The Allies planned for air superiority as the first objective of the invasion because both the ground and air commanders understood the necessity to protect the troops from enemy aircraft. The first two air objectives outlined in the Operation Husky plan were the defeat of enemy air forces within range of the operations and direct support to ground forces during and after the landings.<sup>44</sup> In Sicily, gaining air superiority would require the use of strategic bombers to attack Axis airfields located on the island. Once the Axis moved their aircraft, the Allies would then bomb airfields in Italy.<sup>45</sup> In conjunction with an air superiority bombing campaign, the Allies would also interdict supplies destined for Axis ground troops and airfields. The Allies designed the interdiction campaign to provide both air superiority and support for the ground invasion.

While gaining air superiority, the Allies then planned for the use of airpower in close coordination with the invading Army. Consistent with

---

<sup>43</sup> Message CN-IN-S513, "Algiers to War for CCS from Eisenhower," NAF 207, 11 April 1943.

<sup>44</sup> Arthur Gordon, Maj, "191 Days of Desert War" in *World War II in the Air: Europe*, Major James F. Sunderman, ed., (New York, NY: Franklin Watts, 1963), 110.

<sup>45</sup> Edward T. Russell and Robert M. Johnson, *Africa to the Alps: The Army Air Forces in the Mediterranean Theater* (Washington, D.C.: U. S. Government Printing Office, 1999), 9.

the Allies' and especially the Americans' new emphasis on close coordination of ground and air forces, the orders for Operation Husky went further than any previous plan in emphasizing that the Airmen's role was in a combined effort with ground troops. The plan included a list of priorities for assistance to ground troops during the invasion:

1. If required, light bombers and possibly medium bombers would provide a smoke screen during the assault of the beaches.
2. Tactical reconnaissance aircraft and light bombers were to furnish close cooperation with the land forces.
3. When enemy air had ceased to be a factor in the operations, enemy ground forces were to be attacked by offensive sweeps.
4. Medium and heavy bombers were to be used to provide immediate assistance to the land operation provided:
  - a. The enemy air forces had been rendered impotent, and the normal targets for heavy and medium bombers, such as communication focal points, enemy concentrations, and depots behind the lines did not exist, or
  - b. The military situation was so precarious that all available air power must be concentrated to retrieve it, or
  - c. The enemy was in full retreat.<sup>46</sup>

Although the Allies used this framework to address the requirement for close coordination between air and ground forces prior to the invasion, this did not mean they had solved every problem in this arena.

While the plan for Operation Husky addressed direct coordination between air and ground forces, there were also problems here. Some Allied commanders did not know what to expect from the AAF. There were differing opinions about the adequacy of air support during the initial beach assault. To the naval and ground commanders, the air plan seemed to be unrelated to the overall effort, and commanders had no idea what kind or degree of support to expect. They levied this criticism mainly due to the air planners' tardy submission of their plan to the

---

<sup>46</sup> Edward T. Russell and Robert M. Johnson, *Africa to the Alps*, 25.

naval and ground commanders.<sup>47</sup> Because air planners were dealing with the air campaign in Pantelleria and planning for Operation Husky simultaneously, this led to a split effort in planning and the tardiness in submission of the latter plan. Whatever the reason for the confusion, air and naval commanders should have known what to expect because Eisenhower stated that “It was agreed among the planners of all services that the role of our forces in all phases of the attack was to neutralize the enemy air forces and to provide maximum security for the shipping and assault beaches against enemy air attack, and until that mission had been definitely accomplished, the scale of air effort available for direct support of naval and military operations was certain to be limited.”<sup>48</sup> Operation Husky was the first time that an air commander was responsible for the overall air effort in all sectors, and the other components needed to adjust to this new reality. In the future, smoothing the process of operational planning for a joint operation would be both a priority and a continuing challenge.

Training and experience in close joint air-ground operations during the execution of the invasion were also issues. The Bomb Safety Line (BSL) a notional line designed to de-conflict friendly from enemy targets, tended to be in the wrong place.<sup>49</sup> Sometimes the BSL was in a position where air assets could provide adequate support, and at other times it was in the wrong place, with disastrous results. Commanders complained that in the initial stages of the invasion aircraft attacked friendly troop concentrations even well to the rear in the headquarters area. This was probably because many of the pilots had little experience

---

<sup>47</sup> Albert N. Garland, Lieutenant Colonel and Howard McGaw Smyth, eds, *The United States Army in World War II, Mediterranean Theatre of Operations: Sicily and the Surrender of Italy*, (Washington, D.C.: U. S. Government Printing Office, 1993), 421.

<sup>48</sup> Harry L. Coles, Jr., *Participation of the Ninth and Twelfth Air Forces in the Sicilian Campaign*, 177.

<sup>49</sup> This paragraph relies on Harry L. Coles, Jr., *Participation of the Ninth and Twelfth Air Forces in the Sicilian Campaign*, 177.

in these types of operations and, overall, the AAF was not yet used to training pilots in air-ground coordination issues and in fact had not yet developed the specialized tactics and equipment necessary to maximize air-ground coordination on the battlefield. Both the Army, with its responsibility to properly position the BSL, and the AAF, in its requirement to differentiate among friendly and enemy targets, was not used to operating or training in a close, joint environment.

The disagreement over the effectiveness of the interdiction campaign continued. In its critique of the campaign, Seventh Army stated that air power was ineffective in its interdiction campaign and more specifically in attacking and destroying bridges and roads. Ground commanders felt that, because of the small size of the targets in the interdiction campaign, air power did little in hampering the enemy's efforts. Air leaders disagreed with this assertion, but the critique points to a larger issue. The concerns addressed by the reorganization after the Casablanca conference did not solve the deep philosophical divide over the appropriate use of airpower. Even at this stage of the war, commanders needed to work out both the use of airpower in the direct and indirect ground-support roles. This issue would continue to hamper the Allies as they pushed their way to the heart of Axis-held territory.<sup>50</sup>

### **Italy**

The implementation of FM 100-20 in July 1943 solved many problems for the air commanders, but the ground commanders still had difficulty getting the support they needed. FM 100-20 summarized the organization and employment of air forces. The manual provided for diversion of strategic aviation to tactical missions when the commanders needed those missions. FM 100-20 stated that senior Airmen had the ability to shift the priority of aircraft allocation from one mission to

---

<sup>50</sup> Albert N. Garland, Lieutenant Colonel and Howard McGaw Smyth, eds., *The United States Army in World War II, Mediterranean Theatre of Operations*, 421.

another as the situation demanded. The co-equality of the air and ground commanders led to situations in which ground forces needed to direct aircraft to specific targets but the air commanders still maintained control over the aircraft. The experience in Italy shows that even with a new doctrine document, the Allies still had a long way to go to achieve a truly joint warfighting effort.

Poor coordination between air and ground commanders plagued the start of the campaign in Italy. During the early battles, the Allies were unable to implement many of the lessons learned during Operation Husky because the ends of the battles in Sicily were too close in time to the invasion of Italy. Perhaps the most important impediment to proper air and ground coordination during the invasion of Italy was the fact that most of the aircraft supporting the invasion had to travel great distances to take up their patrols.<sup>51</sup> Many of the airfields supporting the aircraft remained under the threat of enemy attack for many days. There was a general feeling among ground commanders that Airmen did not properly integrate air assets with ground assets at the beachheads. Further, the men on the ground felt that the Airmen were not using their aircraft properly to support ground troops under fire.<sup>52</sup> The situation came to a head on 12 September 1943 when air assets were not able to provide effective support to ground troops battling a German counterattack. The air-ground coordination situation became so bad that Eisenhower attacked both air commanders and the newly published FM 100-20. Eisenhower wrote: “[O]ne major lesson would never be lost sight of in future planning...that during the critical stages of a landing operation, every item of available force including land, sea, and air, must be wholly

---

<sup>51</sup> Alan F. Wilt, “Allied Cooperation in Sicily and Italy, 1943-1945” in *Case Studies in the Development of Close Air Support*, ed. Benjamin Franklin Cooling, (Washington D.C.: U. S. Government Printing Office, 1990), 202.

<sup>52</sup> Report, Air Support in the Salerno Area, Oct 1943, AIR 23/1573, Public Record Office.

concentrated in support of the landing until troops are in position to take care of themselves.”<sup>53</sup> General Clark also became so dissatisfied about the amount of support his troops were receiving that he complained to Field Marshal Alexander. As a result, Airmen almost immediately concentrated the air effort exclusively on supporting troops and postponed most interdiction efforts.<sup>54</sup>

This problem required a solution that addressed airpower coordination at the tactical level and one at the operational level. The Allies developed a system that assigned Airmen to live with the army and provide a liaison between the pilots and ground commanders. The British implemented this system first, but the Americans soon found utility in the idea. At the top level of control was the joint army-air control center. The Americans called this the tactical air control center, from which the operator communicated command decisions to the forward airfields. The next echelon was what the Americans called a “forward director post” or “tactical air direction center.”<sup>55</sup> This center was an intermediary and, if necessary, could maintain direct control of the aircraft using the center’s own radars. Finally, the last level of coordination existed within the ground forces in contact with the enemy. An Airmen, embedded in an army unit, was able to direct aircraft in the final stages of their missions and implement last-minute target changes. Army officers served in aviation units and air officers in ground units, allowing for the development of mutual understanding, coordination, and tactical expertise.<sup>56</sup> This new system promised to provide the control and

---

<sup>53</sup> C. J. C. Molony, et al, *The Mediterranean and the Middle East, United Kingdom Military Series*, Vol. 5, *The Campaign in Sicily 1943, and the Campaign in Italy, 3d Sep 1943 to 31st Mar 1944*, (London, 1973), 327.

<sup>54</sup> Craven, Wesley Frank and James Lea Cate, ed. *The Army Air Forces in World War II*, Vol. 2, 545.

<sup>55</sup> Riley Sunderland, *Evolution of Command and Control Doctrine for Close Air Support*, (Washington, D.C.: U. S. Government Printing Office, 1973), 23-24.

<sup>56</sup> Alan F. Wilt, *Allied Cooperation in Sicily and Italy*, 208.



autonomy air commanders wanted and the support ground commanders demanded.

Planning was the solution to many problems. Consistent with the entire struggle from North Africa to Italy, planning re-emphasized air support to ground troops. General Ira Eaker, Mediterranean Allied Air Forces (MAAF) Commander, summed it up best when he wrote to General Arnold, "Army and air force commanders must work in closest consultation throughout all stages of the formulation and execution of the plan, to ensure that the land and air operations interact to the best advantage."<sup>57</sup> The Allies addressed the planning problem many times in the Mediterranean, but it continued to be an issue. This was due in part to limited air assets and in part to the fact that the AAF was always engaged. Ultimately, the commander in contact with the enemy wanted as many aircraft as possible over his position. With several engagements at once, there simply would not be enough aircraft available and the air commander would need to make resource allocation decisions. Any ground commander who did not immediately have his request met would obviously feel slighted. Such was the relationship between ground and air components, but again the air and ground commanders were doing whatever they could to improve the situation.

To address the problems already encountered in Italy, the Allies again changed the organizational structure of the air forces. Twelfth Air Force reorganized during this period and on 1 November 1943, the Americans established Fifteenth Air Force, which became part of the Combined Bomber Offensive with six groups of heavy bombers.<sup>58</sup> The transfer of heavy bombers out of Twelfth Air Force converted it into a

---

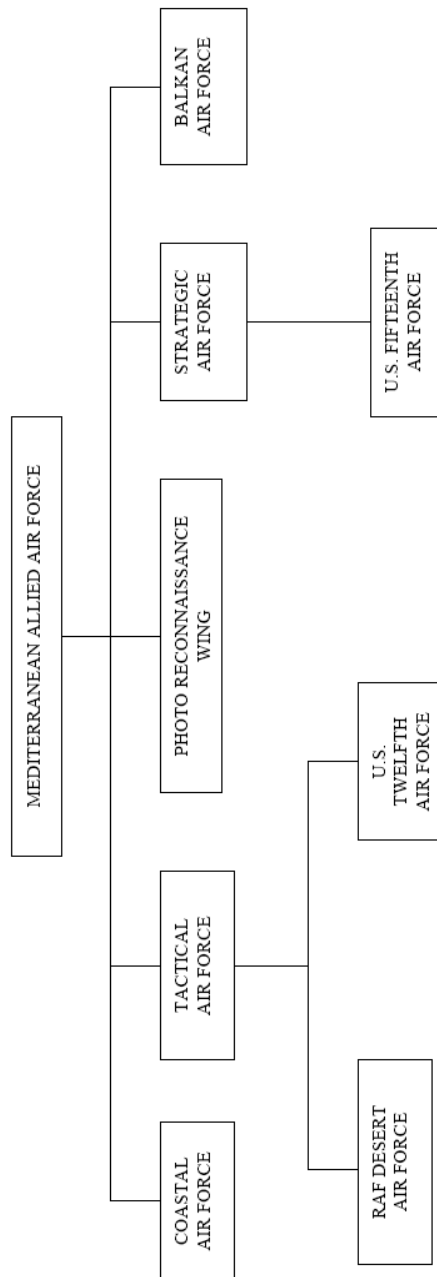
<sup>57</sup> Report, From Gen. Eaker to Gen. Arnold, "Doctrine, Mediterranean Theater of Ops," USAFHRC Doc 621.549-1, 18 May 1944.

<sup>58</sup> History, *The Twelfth Air Force in the Central Italian Campaign*, p. 1, in USAF HRA Doc. 650.01-2 12 December 1944, 1.

unit with a tactical mission.<sup>59</sup> The 12th Bomber Command was essentially an administrative headquarters, and operational control belonged to the Tactical Bomber Force of the Mediterranean Allied Tactical Air Forces (MATAF). No longer were there any heavy bombers in 12th Air Force, and 12th Fighter Command was assigned to the Mediterranean Allied Coastal Air Force (MACAF). This was the air organization the Allies would use for Operation Dragoon.

---

<sup>59</sup> History, *The Twelfth Air Force in the Central Italian Campaign*, 1.



60

Figure 4: Organization of the Mediterranean Allied Air Force

<sup>60</sup> Matthew G St. Clair, *The Twelfth U.S. Air Force: Tactical and Operational Innovations in the Mediterranean Theatre of Operations, 1943-1944*. (Maxwell Air Force Base, AL: Air University Press, June 2003), 54.

## Chapter 2

### GRAND STRATEGIC DEBATE: THE FIGHT FOR ANVIL

#### **Introduction**

A common theme throughout the battles in the Mediterranean Theater of Operations (MTO) is the grand-strategic tension the Allies displayed in making decisions. The decision to launch the invasion of southern France was no exception. However amicable the Americans and British were during negotiations, they dropped all pretenses over the future of Operation Dragoon. While the strain was not so great as to pull the Allies apart, it was not one of their best moments.<sup>61</sup>

#### **Allied Strategy in the Mediterranean**

The Mediterranean strategy exemplified the relationship between the Allies. Very often, they were not able to agree on a particular course of action. The discussions and compromise decisions that came out of the Casablanca conference would shape the entire war. In line with their original plans when entering the war, the Americans wanted to strike at the heart of Germany through a cross-Channel invasion at the earliest possible time. The Americans felt that a component of the AAF, stationed out of North Africa, would be enough to force the collapse of the Italian mainland.<sup>62</sup> This was typical of both the American view of war

---

<sup>61</sup> This chapter is based on the following works: Jeffery J. Clark and Robert Ross Smith, *United States Army in World War II, The European Theatre of Operations, Riviera to the Rhine* (Washington, D.C.: U. S. Government Printing Office, 1993) 3-22.; Wesley Frank Craven and James Lea Cate, ed. *The Army Air Forces in World War II, Vol. 3, Europe: Argument to V-E Day January, 1943 to May 1945* (Chicago, IL: The University of Chicago Press, 1951), 408-438; Steve Weiss, *Allies in Conflict: Anglo-American Strategic Negotiations, 1938-44* (New York, N.Y.: St. Martins Press, 1996), 141-159; Samuel Elliot Morrison, *Strategy and Compromise* (Boston, MA: Little, Brown, and Company, 1958), 54-60.

<sup>62</sup> Albert N. Garland, Lieutenant Colonel and Howard McGaw Smyth, eds., *The United States Army in World War II, Mediterranean Theatre of Operations*, 6.

and their reliance on the technological edge they believed airpower would provide. The British, on the other hand, felt that the best way to conduct the war was a sustained offensive through the Mediterranean that would ultimately drive to Germany.<sup>63</sup> This peripheral strategy promised, in the British view, to provide the most pressure on the Germans while relieving the most strain on the British and Russians. Even after a 21 December 1941 visit by Churchill to Washington D.C. to address the Congress, the two sides could not agree on a final course of action.

Both the Americans and the British did agree to an *initial* course of action: The Allies would attack in North Africa. They also agreed to a general strategy for hemming in the Axis powers and going specifically after Italy to knock that country out of the war early.<sup>64</sup> The Allied strategies' initial military action was a success and after much debate at Casablanca, the Americans finally warmed to continuing the strategy in the Mediterranean with an invasion of Sicily. What the Allies would do after Sicily was still open to debate, but General George Marshall still pressed for an overall grand strategy for the war.<sup>65</sup> Again, Churchill sums up the difference in the American and English view through his remark that Americans had an "undue liking for logical clear-cut decisions."<sup>66</sup> Yet, this comment misses the true thread that tied the Allies together. They had a clear understanding that the Soviets needed help and the Allies did not yet have the troop strength to do anything but attack at the periphery. Although the Americans wanted a cross-channel invasion in 1943, nobody believed the Allies were ready. The invasion of

---

<sup>63</sup>Warren F. Kimball, ed., *Churchill & Roosevelt: The Complete Correspondence*, Vol. 2, *Alliance Forged, November 1942-February 1944*. (Princeton, NJ: Princeton U. Press, 1984), 117-121.

<sup>64</sup> Michael Howard, *The Mediterranean Strategy in the Second World War*, (London: Greenhill Books, 1968), 19-20.

<sup>65</sup> Lieutenant Colonel Albert N. Garland and Howard McGaw Smyth, *United States Army in World War II, The Mediterranean Theatre of Operations*, 9.

<sup>66</sup> Lieutenant Colonel Albert N. Garland and Howard McGaw Smyth, *United States Army in World War II, The Mediterranean Theatre of Operations*, 9.

Sicily provided the best opportunity, within the realistic constraints of the situation at the time, to exert maximum pressure on the Axis and knock Italy out of the war. Airpower, through a struggling strategic bombing campaign in the north, was putting pressure on the Germans. Gaining a beachhead large enough to prepare for and exploit a sustained offensive in Italy appeared to be the best available complementary option. With the Americans and the British finally agreeing that a further elaboration of strategy in the Mediterranean would have to wait, planning for the invasion of Sicily started on 23 January 1943, with air-ground cooperation developing as we have seen in previous chapters.

## **TRIDENT**

Discussions about the viability of an invasion of southern France actually began much earlier than one might expect. The debate started during the TRIDENT conference in May 1943. The Allies convened the conference in Washington D.C. to discuss their moves after North Africa and specify what their long-term strategic plans should be.<sup>67</sup> Since the conclusion of the Casablanca conference, the Americans seemed to be drifting towards a greater focus on the Pacific, so Churchill wanted to use this gathering to shore up the Allied “Germany-first” policy.<sup>68</sup> With Marshall’s approval and Field Marshall Alan Brooke dreading a fight with his American allies, the Americans continued to deviate from the agreed strategy and move forces towards the Pacific.

The Allies originally conceived Operation Anvil as an invasion timed to occur concurrently with Operation Overlord. The main intent of the synchronized operations was to hold German troops in southern France and prevent them from reinforcing units defending the Normandy beaches. Due to the potentially precarious position of Allied troops in Normandy during the initial phases of Overlord, JCS planners

---

<sup>67</sup> Forrest C. Pogue, *George C. Marshall: Ordeal and Hope, 1939-1943*, (New York, NY: Viking Press, 1966), 310.

<sup>68</sup> Steve Weiss, *Allies in Conflict*, 83.

determined that Anvil was critical to the success of Overlord and the ultimate defeat of German forces in occupied Europe. In addition to holding German forces in southern France, Anvil would allow the Allies to seize major ports there, which would supplement the supplies delivered to the ports in the Overlord invasion area. Acknowledging the Allied priority of an invasion in northern France, the JCS settled on the following strategic plan for the Mediterranean and implementation of Anvil: “1) eliminating Italy from the war and clearing the Italian peninsula as far north as Rome; 2) capturing Sardinia and Corsica to increase the width and depth of the Allied air penetration into Europe; and (3) creating a situation in the Mediterranean favorable to the launching of Anvil about the time of Overlord.”<sup>69</sup>

The Joint Chiefs of Staff (JCS) and British Chiefs of Staff (COS) considered a strategy beyond Sicily by considering multiple invasion areas in the Mediterranean. One of the potential invasion areas was the southern coast of France. Both the JCS and the COS considered an invasion of southern France, a risky proposition at this early stage. The Americans wanted to continue moving troops and equipment north for the eventual invasion across the English Channel. They continued to believe that a decision to move against southern France would force the Allies to abandon a cross-Channel attack because the material commitment would bog them down in the western Mediterranean. Again, as they did prior to TORCH and in Casablanca, the COS argued for continuation of an action aimed at eliminating Italy from the war and approaching Berlin from southern Europe. This move would cause the Germans to redeploy forces away from the beaches in northern France and help ensure the success of the cross-Channel invasion. Ultimately,

---

<sup>69</sup> Jeffery J. Clark and Robert Ross Smith, *United States Army in World War II, The European Theatre of Operations, Riviera to the Rhine*, 8-9.

both parties agreed that it was too early to plan seriously for an invasion of southern France.

General Dwight Eisenhower, the Supreme Allied Commander of the Mediterranean, was less than enthusiastic about Anvil. Eisenhower's lack of enthusiasm stemmed from the need to ensure that the priority, Overlord, had all of the resources necessary to be successful. During the planning for Overlord, the COS insisted that the Allies would have to make their logistical plans much larger than originally envisioned. For the rest of the European theater, this meant a shortfall in the number of sealift craft available for military operations. In order to rectify the planned logistical shortfall for Overlord, the Allies would need to include landing craft from either the Pacific or the Mediterranean in their calculations. The Americans indicated that they were unwilling to move craft from the Pacific to the Mediterranean for Anvil. The shortfall of landing craft meant the Allies would need either to significantly reduce the size of the invasion of southern France or reduce the size of the invasion force for Overlord. There was not enough material in the European theater to launch both invasions at their planned strength. Since the Allies would never reduce the size of Overlord, Eisenhower submitted a revised Anvil plan in late October 1943. The revised plan called for one division to invade southern France. It was clear to the Allies that when planned as only a one-division invasion, the success of Anvil was in question and would in any case create only a minor diversion for German forces there. With the success of Anvil in question, the Allies dropped the issue from the SEXTANT meetings in Cairo.

### **SEXTANT I**

While the Americans and British usually had a somewhat strained relationship, the conferences in Cairo were exceptionally acrimonious and demonstrated that they were at something approaching a breaking point. Regarding the general atmosphere during the Cairo conferences John Eisenhower, son of the General, stated "SEXTANT I was laden with



acrimony for several reasons: an accumulation of unpleasant decisions deferred from previous conferences, leaving basic disagreements unresolved, the loss of British partnership dominance, the concern over the meeting with Stalin and the presence of Chaing and his wife in Cairo.”<sup>70</sup> While these peripheral issues set the tone for the conference, the real problems surfaced over the Allies’ Mediterranean strategy. No longer the primary player in the Grand Alliance, the British began to become verbal in their desire to pursue an eastern Mediterranean strategy and attack Germany from the Dardanelles. The Americans strongly disagreed and felt this was an attempt to make the Mediterranean a British-only theater. After one of Churchill’s red-faced tirades, Marshall described the following scene to his biographer: “Churchill was red hot and all the British were against me. It got hotter and hotter. Churchill stood before me, his hands clutching his lapels and declared, ‘His Majesty’s Government can not have its troops staying idle. Muskets must flame’. I responded sharply, ‘God forbid if I should try to dictate, but not one American soldier is going to die on the goddamned beach [in the Dardanelles].”<sup>71</sup> During the conference, relationships were strained across the board. In another discussion, Admiral Earnest King became so angry about Brooke’s arrogance that he almost climbed over a table to get at him. Fellow officers had to restrain him. It was in this less-than-congenial atmosphere that the Allies moved forward to figure out both the future directions of their alliance and the strategy to defeat Germany.

## **EUREKA**

The Allies failed to solve anything during the conferences in Cairo, but they still met with Stalin and the Soviets in Tehran. It was in Tehran that Stalin weighed in about Allied strategy. Overall, Stalin objected to

---

<sup>70</sup> See Steve Weiss, *Allies in Conflict*, 132.

<sup>71</sup> Thomas D. Parrish, *Roosevelt and Marshall: Partners in Politics and War*, (New York, NY: W. Morrow, 1989), 390.

further American and British operations in the eastern Mediterranean area because in his view this action would only serve to prolong a war in which too many Russians had already died. Stalin felt that a peripheral Mediterranean strategy would only serve to detract from Overlord, which he insisted the Allies launch in May of 1944. Stalin also weighed in on the issue of an invasion of southern France, supporting it as part of the overall strategy for Overlord. Stalin was fascinated by the “pincer strategy” of the dual Operation Overlord-Anvil invasions. From his perspective, any other operation in the Mediterranean would not prove decisive. While reduced planning for Anvil was ongoing, by January of 1944 Eisenhower set up Force 163 in Algiers to intensify the focus on the operation. Even with Russian and American support, the amount of sealift needed to accomplish both Overlord and Anvil required more than was available. The Allies again postponed Anvil.

### **Revival**

The decision to execute Operation SHINGLE, the invasion of Anzio, had a great effect on the future of Anvil. The meeting minutes of the CCS indicate the importance of a speedy conclusion to the conflict in Italy: “The decision to mount Anvil in May had been based on the assumption, among others, that the Allied armies in Italy at that time would be approaching the Piso-Rimini line, and on the strong presumption that the assaulting divisions for Anvil would come from Italy.”<sup>72</sup> As the unexpected often happens in war, the invasion at Anzio bogged down and did not proceed as planned. The extended Anzio invasion ensured that the troops engaged both there and in the rest of Italy would not be available for any version of Anvil timed to coincide with Overlord.

Developments in Italy forced the Allies to focus on the capture of Rome by May 1944. The Allies devoted almost all troops in the

---

<sup>72</sup> Wesley Frank Craven and James Lea Cate, ed. *The Army Air Forces in World War II*, Vol. 3, 409.

Mediterranean to this key objective. Discussions regarding Anvil had to wait until at least the middle of March 1944. On 30 March 1944, due to lack of men and landing craft available for the invasion, the Allies agreed that Anvil could not take place on the same day as Overlord. The Allies needed to make significant changes to the Anvil timetable. While changing the invasion date lowered Anvil's overall importance, it did not cancel it. Limited planning continued.

Early in June 1944, the Allies seized Rome earlier than expected, and the debate about Mediterranean strategy and Anvil opened anew. Field Marshall Henry Wilson informed the CCS that when the troops at the Anzio beachhead linked with the main forces in Italy, he could start to release troops for another action in the Mediterranean. He suggested a small invasion on the southern coast of France and, in addition, the COS proposed an invasion in the Adriatic. The JCS again looked to the Pacific theater to gain additional landing craft and supplies. According to Clarke and Smith, the Allies developed five alternative courses of action that seemed feasible: 1) an Anvil landing in the Marseille-Toulon area followed by an exploitation north up the Rhone valley; 2) an Anvil landing in the Sete area, west of Marseille, and an exploitation northwest of Bordeaux; 3) an assault in the Bay of Biscay areas, but only after Overlord forces had advanced as far south as the Loire River; 4) an advance in Italy north to the Po, followed by a drive west into France or northeast into Hungary through the Ljubljana Gap; and 5) a landing at the head of the Adriatic with a subsequent exploitation northeast through the Ljubljana Gap. During Overlord, the Germans managed to destroy most of the ports that the Allies sought to use for re-supply of the invasion forces. Consequently, the need to secure ports for the support of the forces pushing out from the Overlord beachhead lent further weight to the decision for an invasion of southern France as soon as possible.

Once the Germans wrecked the ports in northern France, Eisenhower saw Anvil as the best way to secure an additional supply line to Allied troops in the north. He felt that an invasion undertaken before the end of August would still be of great help to the troops pushing toward Germany. American planners determined that an invasion during the second half of August was practical and on 2 July 1944, the CCS directed Wilson to plan for a three-division invasion of southern France on 15 August. Again, the Allies displayed their divisiveness over Anvil during this time. The COS again wanted to scrap the plan for Anvil, continue with the invasion of Italy, and push to the north, ultimately to invade Germany. The JCS felt that the British were reintroducing the old Anvil-versus-Italy argument. The Americans finally had enough of the British debate about the invasion of southern France. In an uncharacteristically directive cable, the JCS scolded the COS:

Anvil will be launched at the earliest possible date. You will use every effort to meet a target date of 1 August. You will prepare for the operation on the basis of approximately a 3 division assault an airborne lift for the equivalent of 1 division and a build up to at least 10 divisions as quickly as the resources made available to you will permit, having in mind in your preparation the steady reduction in German capacity to resist and the vital importance of prompt support for the Overlord operation. You will use all available Mediterranean resources not required for Anvil to carry out your present directive with regard to operation in Italy...<sup>73</sup>

What makes this cable so surprising is that the JCS had no directive authority over the COS. Allied relationships must have been especially strained for the JCS to contemplate a message with this tone. Even this message did not deter the British and Churchill from their constant objections and on 26 June, they turned Anvil down. They continued to

---

<sup>73</sup> Joint Staff Mission 114, Joint Staff Message to British Chiefs of Staff, Cable 122/1246 27 June 1944 in Steve Weiss, *Allies in Conflict*, 153.

press for the destruction of all Axis forces in Italy. This again intensified the animosity in the Anglo-American relationship and the Americans cabled: “The proposal of the British Chiefs of Staff to abandon Anvil and to concentrate on a campaign in Italy is unacceptable. The fact that the British and United States Chiefs of Staff are apparently in complete disagreement in this matter at this particular moment when time is pressing presents a most deplorable situation. We wish you to know now, immediately, that we do not accept the statements in your answer in general with relation to the campaign in Italy as sound and as in keeping with the early termination of the war.”<sup>74</sup> Despite the sharp differences between the American and British positions, the invasion was finally set to proceed and it would, seemingly against all odds, remain an Allied effort.

### **Conclusion**

Even in the best of times, the ability to work with allies or coalition partners is difficult. Yet the Germans seemed to put the Allies, especially the British, on what Sun Tzu terms “Death’s Ground.”<sup>75</sup> This ground produces a spirit in the troops that enables them to fight to the death with a unity of purpose. A quick glance at Allied relationships during the war might lead one to believe this was in fact always the case.

Yet the *political* wrangling during the lead up to Anvil shows anything but this sort of unanimity. Anvil’s original objective was to prevent the Germans from reinforcing troops defending against Overlord. Dragoon—the renamed Anvil—occurred significantly after Overlord. While the unexpected length of the Anzio invasion nullified the original assumption of using troops from Italy, it is difficult to underestimate the effect this acrimonious relationship had on invasion planning. The Allies planned for few alternative scenarios because they were too busy either

---

<sup>74</sup> Steve Weiss, *Allies in Conflict*, 151.

<sup>75</sup> Sun Tzu, *The Illustrated Art of War* (New York, NY: Oxford University Press, 2005), 212.

trying to kill the plan or implement it in spite of each other. While the British seemed to be the greatest offenders in trying to kill Anvil, the Americans were almost as bad. Both King and Marshall were opposed to flowing men and equipment between theaters. In the British case, it appears that had the overall Nazi threat not remained so great, they might well have stayed within the alliance but simply engaged in their own operations in the eastern Mediterranean. This would have posed a huge problem for future Allied unity of effort. The Allies had a way to alleviate the pressure caused by a lack of men and material, aircraft.

The Allies could have used airpower as a replacement for lost manpower. It seems, however, that airpower may have evolved into such a supporting role in the Mediterranean that the Allies did not discuss its full potential as a replacement for missing manpower. An interesting aspect of the political wrangling over Anvil was the almost complete lack of discussion about airpower's potential to fill in for a shortfall in troop strength. The only discussion seems to have occurred around 17 June when discussing Operation Diadem. The Allies launched Diadem on 12 May 1944 as part of the Italian campaign. It was designed to break the German defenses on the western half of the Winter Line and open up the main route to Rome. Wilson stated that the success of Diadem had been "largely due to the destruction of enemy communications and dumps and the breaking up of reinforcing formations by concentrated air action."<sup>76</sup> He believed that splitting the effort in the Mediterranean between Italy and southern France would make the air effort in Italy purely defensive. Arnold and Marshall disagreed, arguing that because there were so many aircraft in the Mediterranean they would be able to support both efforts successfully.

---

<sup>76</sup> Wesley Frank Craven and James Lea Cate, ed. *The Army Air Forces in World War II*, Vol. 3, 412.

Because of the political wrangling and delays in implementing Anvil, the original intent of holding German troops in southern France went unfulfilled. The Germans pulled the majority of good units out of southern France by July and the Allies faced only second-rate troops by the time of the invasion.<sup>77</sup> Using a smaller force of troops for the landing and a larger force of aircraft for both interdiction and close air support, the overall goal of Anvil was in reach. The Allies did not explore the possibility of using aircraft in this way because of Eisenhower's emphasis on not going below the original three divisions for the invasion. The Allies may have overcome Anvil's shortcomings and political divisiveness through a better analysis of the utility of the airpower in the region. Perhaps the genesis of airpower as a direct-support force for the army blinded planners to its full range of potential roles and missions.

---

<sup>77</sup> Steve Weiss, *Allies in Conflict*, 159.

## CHAPTER 3

### OPERATIONAL PLANNING: PROBLEMS AGAIN

#### **Introduction**

On 12 August 1944, the first shots of the last major invasion in the European Theater of Operations sounded over the shores of southern France. The Allies had arrived with a large invasion force, although smaller than the size of the force used in Normandy. This force's target was the German troops and supplies capable of supporting troops retreating from the Normandy battle area. Originally named Operation Anvil, this invasion was to be the blow that would ensnare most of the German army in France and help speed the end of World War II.

About 151,000 strong, Allied troops of three nations rolled ashore to meet the German Army.<sup>78</sup> The Allies coordinated invading troops by a series of command arrangements that made the Navy the supported unit until the troops were ashore, at which point the Army would take over. This command arrangement would ultimately create a seam that would make command and control of airpower acrimonious and difficult. Although the invasion proceeded at a pace much faster than Allied intelligence anticipated and proved dramatically successful, there are many lessons airpower advocates can learn from its operational planning.<sup>79</sup>

#### **Geography**

Southern France provided Allied planners with the best chance for success during the planned invasion. To invade anywhere other than from the Mediterranean would prove counterproductive to the goals of

---

<sup>78</sup> Jeffery J. Clark and Robert Ross Smith, *United States Army in World War II, The European Theatre of Operations, Riviera to the Rhine*, 92.

<sup>79</sup> William B. Breuer, *Operation Dragoon: The Allied Invasion of Southern France* (Novato, CA: Presidio Press, 1987), 249.



Operation Dragoon. Of the possible landing areas in the Mediterranean, the one near the Spanish border contained the Pyrenees Mountains and the one near the Italian border contained the Alps. These obstacles led planners to look at the central part of the Gulf of Lyon.

Allied planners understood, just as Napoleon did, that an invasion up the Rhone River valley provided the best avenue of advance into the center of France. Along the Mediterranean coast, three mountain masses rise inland. On the west, the Pyrenees, stretching from the Atlantic to the Mediterranean, form the ancient boundary between France and Spain. It is a rough area where today's Basque terrorist groups are still able to find refuge. East of the Pyrenees rises the Massif Central, situated in the middle of France and covering about 15 percent of the country. Long a barrier to communication, a deep north-south valley created by the Rhone River separates the Massif Central from the Alps. Finally, the Alps form the French border with Italy. This ancient barrier, which rises from the sea, forms what is known as the Provence Alps and forms a natural obstacle to any sort of invasion. The invasion force needed a place to land and then proceed along the Rhone River Valley.

Dragoon's planners decided to land the invasion force at three beaches between Nice and Toulon. The beaches in the delta of the Rhone River were marshy and some of the most heavily defended in the area.<sup>80</sup> For this reason, planners decided that the beaches near the Toulon area were best for both the invasion and an "over-the-beach" resupply.<sup>81</sup> The beaches were code named Alpha (Cavalaire-sur-Mer), Camel (Bougnon Bay), and Delta (St. Tropez). This area provided the invasion force with beaches adequate for landing and resupply. Also, the ports of Marseille,

---

<sup>80</sup> Jeffery J. Clark and Robert Ross Smith, *United States Army in World War II, The European Theatre of Operations, Riviera to the Rhine*, 73.

<sup>81</sup> Lieutenant Colonel James W. Boddie, Jr., *Ammunition Support For Operation Dragoon, the Invasion of Southern France—Could We Do It Today?* (Washington, D.C.: U. S. Government Printing Office, 1987), 4.

Port De Bouc, and Toulon were in the invasion area. Marseille was the leading port in France and its deep water would allow the invasion force to move supplies into position. These ports would allow the Allies not only to land more troops and supplies, but also to avoid the problems associated with the capture of ports during Overlord when the Germans virtually destroyed them. Airpower would play a vital role in ensuring the Allies seized these ports intact.

After two years of fighting, the Allies thoroughly understood the need for air superiority and air support during an invasion. All of the beaches west of Toulon were out of range of the tactical aircraft based in Corsica to support the invasion.<sup>82</sup> While the invasion plans called for the use of escort carriers to provide air support during the invasion, it was not possible to provide for all needs through only the use of naval aircraft. Based on the shared experiences of the AAF and the Army during the tough fighting throughout the Mediterranean, integration of all air assets would be necessary for a successful invasion. Not only was the AAF going to provide air cover for the invasion force, but the plans also called for the insertion of airborne and glider troops behind enemy lines. It was critical to find an invasion area that was in range of Allied aircraft.

### **German Forces**

By the summer of 1944, the German army was in disarray. The bloodletting of the June 1944 Soviet summer offensive, Operation BAGRATION, combined with the North African campaign, had already decimated army strength to a point where there was no hope of recovery. Beyond that, Germany's enemies stretched the Reich's armies on all fronts. The Russians continued their relentless assault and had already advanced into what had been Poland. The Anglo-Americans had

---

<sup>82</sup> Jeffery J. Clark and Robert Ross Smith, *United States Army in World War II, The European Theatre of Operations, Riviera to the Rhine*, 73.

established a beachhead in France and Allied troops were advancing into northern Italy. Hitler and the Oberkommando der Wehrmacht (OKW) meddled in German Army affairs to the point of severe detriment. OKW constantly replaced German army commanders on all fronts and gave them impossible tasks.<sup>83</sup> The commanders in southern France were no exception.

These senior officers were well qualified but were not part of OKW's inner circle. Colonel General Johannes Blaskowitz, the commander of Army Group G in southern France, had extensive experience in the German army. Starting his career as an officer in World War I, he commanded the 8th Army in Poland (1939). Although he seemed to be destined for a great career, after trying to stop Himmler's Einsatzgruppen from murdering "undesirables" in Poland, he was blacklisted. After Poland, the Army sent him to the 9th Army in France (1940). He then served as military governor of northern France (June 9-26, 1940) before Hitler forced him to retire. The German Army recalled him to the 1st Army in France, in October 1940, before he ultimately took command of Army Group G on 5 May 1944.<sup>84</sup> Blaskowitz put General of Infantry Friedrich Wiese in charge of the 19th Army, which would defend the beaches against the Allied invasion. Wiese had also served in The Great War and spent three years fighting on the Eastern Front at Leningrad, Orel, Bryansk, Gomel, and Bobruisk. He was a fine officer noted for his tactical skill and was thought capable of handling any crisis in the

---

<sup>83</sup> Colonel Len Fullenkamp, "Review of Retreat to the Reich: The German Defeat in France, 1944" *Parameters* US Army War College Quarterly, Winter 2001-02, Vol. XXXI, No. 4: 153-172.

<sup>84</sup> Robert B., Kane. *Disobedience and conspiracy in the German Army, 1918-1945*. (Jefferson, NC: McFarland, 2002). 161.; Martin Kitchen,, *The Third Reich: Charisma and Community*. (Upper Saddle River, NJ: Pearson Education, 2008). 247.

area.<sup>85</sup> Both of the commanders were competent, but they would have to use a motley army to repel the upcoming invasion.

Had Dragoon occurred in concert with Overlord, the German forces in southern France would have posed a more serious threat. The United States planners were correct when they determined that Anvil was necessary to prevent forces from reinforcing those fighting against the Allies during Overlord. The Germans used their best troops in southern France to supplement units fighting in the north. On 7 June, the 17th SS Panzer Grenadier Division departed, followed by many of the best troops in the south. Throughout the summer months, as more troops flowed out of the sector, there were too few reinforcements, mostly of inferior quality, adequately to defend the long coast of the Mediterranean. Hitler and the Germans were far more concerned about the situation in northern France and a possible invasion in northern Italy.<sup>86</sup>

American planners suspected that the German forces facing them during Dragoon were of poor caliber. The Mediterranean Allied Tactical Air Force (MATAF) after-action report assessment of the German army, noted that “the 338th, 244th, 242d, and 148th Divisions, which were the only ones in the immediate vicinity of the assault area, were all Limited Employment Divisions, generally of poor caliber, and containing large numbers of non-Germans. Total strength of each was not more than 8500 men. Equipment was only partly mobile, and of inferior quality.”<sup>87</sup> While this assessment addressed the quality and numbers of troops in the immediate vicinity of the landing area, the report only addressed the best troops. The qualities of the other troops in Army Group G were even worse.

---

<sup>85</sup> Keith E. Bonn, *When the Odds Were Even: The Vosges Mountains Campaign, October 1944-January 1945*, (New York, NY: Random House, 2006), 77.

<sup>86</sup> Paragraph based on Jeffery J. Clark and Robert Ross Smith, *United States Army in World War II, The European Theatre of Operations, Riviera to the Rhine*, 62-63.

<sup>87</sup> Report on Operation Dragoon: Mediterranean Allied Tactical Air Force AFHRA Reel 626.43009, 5

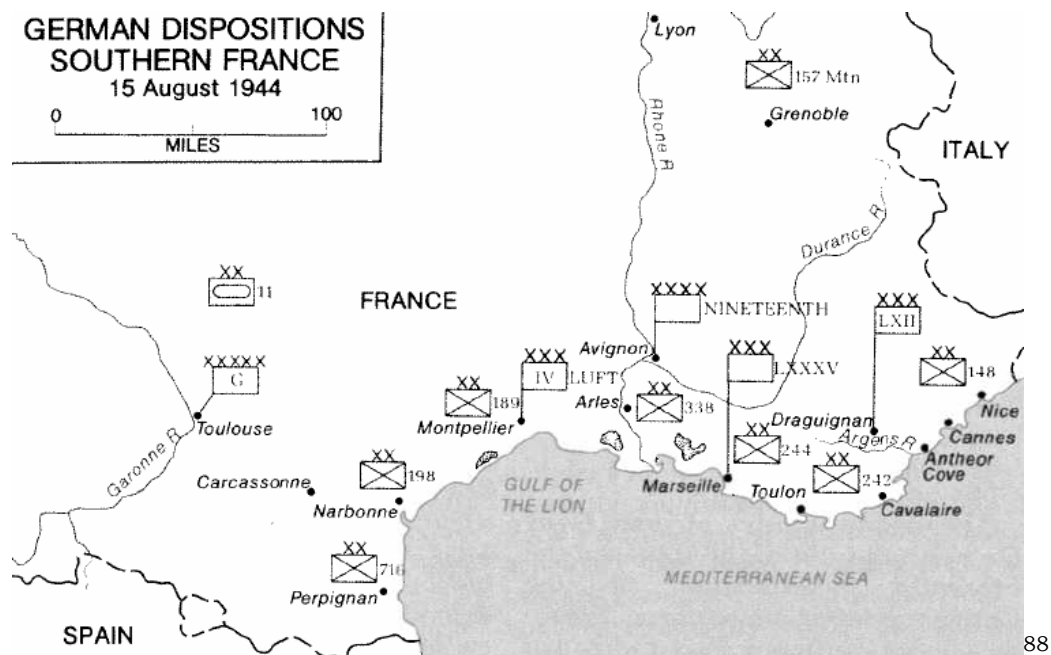


Figure 5: Disposition of German Troops on 15 August 1944

Along with the German Army, the German Navy and Luftwaffe were also in bad shape. The Allies could hardly consider the German Navy in southern France a good fighting force. According to Alan Wilt "by August 15, the German Navy had only one operational destroyer, three submarines, seven escort vessels, 30 patrol boats, and approximately 30 auxiliary vessels (such as minesweepers) in the Mediterranean."<sup>89</sup> As early as 1939, the Germans did not have enough combat pilots to fight the war. Because of under-emphasis on the program and worsening fuel shortages, the Luftwaffe reduced the pilot training program from 260 hours of flight time per student in 1940 to 50 in 1944. In addition, pilots and aircraft were of such poor quality that in May of 1944, the Luftwaffe lost 712 planes in combat action and 656—nearly as many—in flying

<sup>88</sup> Jeffery J. Clark and Robert Ross Smith, *United States Army in World War II, The European Theatre of Operations, Riviera to the Rhine*, 66.

<sup>89</sup> Alan F. Wilt, *The French Riviera Campaign of August 1944* (Carbondale, IL: Southern Illinois University Press: 1981), 45.

accidents.<sup>90</sup> Too add to the general dysfunction of the Luftwaffe in the west, Luftwaffe Field Marshal Hugo Sperrle no longer cared for command and soon let the Luftwaffe in the 3rd Air Fleet (located in France) become ineffective because of laziness and an emphasis on useless “terror-bombing.”<sup>91</sup> According to Samuel W. Mitcham: “Like the navy, the Luftwaffe in southern France was on the verge of operational bankruptcy in August 1944. It had only 186 airplanes, and many of these were inoperative. They included about 30 Me-109 fighters, 65 Ju-88 bombers, 35 reconnaissance airplanes of various types, 15 unreliable (and dangerous) He-177s, and about 30 obsolete Do-217 bombers, all under the control of the 2nd Air Division. Another 50 fighters in northern Italy were available for transfer on short notice.”<sup>92</sup> These meager forces had to contend with a 20 to 1 ratio when confronted by the 4,056 aircraft of the 15th United States Air Force alone.<sup>93</sup> The ratio was even more lopsided when including the total Allied air effort planned for Dragoon. The German navy and Luftwaffe had a very daunting task, indeed.

### **Plan changes and revisions**

During the initial phase of planning for Anvil, the Allies focused on joint coordination. While the Allies tried to fight a war in Italy, they also tried to plan for an invasion of southern France. Planning for the invasion began on 28 December 1943. Headquarters, Mediterranean Allied Air Forces (Rear) sent a planning letter to the Air Officer Commanding, Northwest African Tactical Air Force (NWATAF) directing his staff to begin planning for an invasion that would occur in

---

<sup>90</sup> Gordon A. Harrison, *Cross-Channel Attack, United States Army in World War II, European Theater of Operations* (Washington, D.C.: U. S. Government Printing Office, 1951), 266.

<sup>91</sup> Samuel W. Mitcham, Jr. *Retreat to the Reich: The German Defeat in France, 1944* (Westport, Conn: Praeger, 2000) 13.

<sup>92</sup> Samuel W. Mitcham, Jr. *Retreat to the Reich*, 169.

<sup>93</sup> Alan F. Wilt, *The Riviera Campaign of August 1944*, 71.

conjunction with Overlord.<sup>94</sup> On the same day, a preliminary directive issued to the Navy resulted in the establishment of the Western Naval Task Force.<sup>95</sup> This planning document was nothing more than an outline and general discussion of the invasion. However, what is noticeable is that it immediately addressed the need for a joint planning effort for the invasion. The letter directed the air staff to plan for the operation in coordination with the Navy and the Army. It directed the 12th Air Support Command to maintain close contact with both the Naval and Army planning staffs so that the NWATAF's views were included during the planning stage. The planning document went so far as to direct the Commanding General, at this time Lieutenant General Mark Clark, personally to consult with naval and army commanders at every opportunity. It also tasked the AAF with the "responsibility for the provision of air cover over the assaulting forces and for close air support to the operations."<sup>96</sup> Clearly, the Allies understood the importance of a joint and combined planning effort.

While planners addressed the generalities of joint airpower planning early, they still had to work on the details. As Dragoon/Anvil planning continued, on 31 January 1944 MATAF released a series of operational directives. The Commanding Generals of 12th Air Support Command (later designated 12th Tactical Air Command, or 12th TAC), Tactical Bomber Force, and Desert Air Force received operational directives (Numbers 1-4).<sup>97</sup> Directive No. 2 outlined the initial plans and

---

<sup>94</sup> Headquarters, Mediterranean Allied Air Forces (Rear) planning letter to the Air Officer Commanding, Northwest African Tactical Air Force, 28 December 1943, 1.

<sup>95</sup> Report on Operation Dragoon: Mediterranean Allied Tactical Air Force AFHRA Reel 626.43009, 5.

<sup>96</sup> Headquarters, Mediterranean Allied Air Forces (Rear) planning letter to the Air Officer Commanding, Northwest African Tactical Air Force, 28 December 1943, 1.

<sup>97</sup> Report on Operation Dragoon: Mediterranean Allied Tactical Air Force AFHRA Reel 626.43009, 5.

responsibilities for Anvil.<sup>98</sup> Under the heading “Convoy Protection,” the Air Officer Commanding, Mediterranean Allied Coastal Air Force (MACAF), protected all shipping and convoys to within a distance of 40 miles from the invasion beach. 12th Air Support Command would then take responsibility for control when ships were within 40 miles of the beach. Obviously, the coordination of this type of coverage could be tricky at best because of the possible conflict of interest in supporting both the fleet and invading soldiers. Plan No. 2 is nebulous on this point, but does direct that “the extent and duration of this help will be determined during detailed planning.” Later in the document, Allied commanders directed planners to address the necessity of aircraft control in a difficult joint environment. The document directs that: “MAAF have been requested to obtain agreement from Commander-in-Chief, Mediterranean, that these [Naval carrier based aircraft] will be operated in accordance with the requirements of this Headquarters.”<sup>99</sup> Although well on its way, the detailed planning for the control of aircraft halted due to political indecision.

The Allies postponed Anvil, but the services continued to plan for a joint solution to the invasion. On 17 February 1944, officers from both MATAF and 12th TAC traveled to Algiers to meet with the Army and Navy planning staffs.<sup>100</sup> However, on 18 February Headquarters MAAF sent a letter to the Commanding General, MATAF, notifying him that the Allies had postponed Anvil due to the limited number of landing craft available in the Mediterranean theater.<sup>101</sup> The letter then directed that planning continue. However, it directed planners to change their assumptions—

---

<sup>98</sup> Headquarters, Mediterranean Allied Air Forces, *Operational Directive No.2*, 31 January 1944 (AFHRA roll A6108), 3.

<sup>99</sup> Headquarters, Mediterranean Allied Air Forces (Rear) planning letter to the Air Officer Commanding, Northwest African Tactical Air Force, 28 December 1943, 2.

<sup>100</sup> Mediterranean Allied Tactical Air Force, *Report on Operation Dragoon*, AFHRA Reel 626.43009, 6.

<sup>101</sup> Headquarters, Mediterranean Allied Air Forces to Commanding General, MATAF, letter, 18 February 1944, AFHRA roll A6077, 1.



that they should count on one division in an operation designed to divert forces away from Overlord. To fend off policy issues, the letter directed that planning should be in support of Fifth Army in Italy or on the Adriatic coast. Although the planners did little detailed work on the airpower plans for Anvil, planning could continue.<sup>102</sup> This proved fortunate because by the end of February 1944, planning for the operation resumed.

Although, to this point, planning for Anvil included very little detailed work, American Airmen developed a preliminary solution for the command and control of airpower. On 2 March 1944, Allied Force Headquarters assigned Major General Alexander M. Patch, Jr. as the commander of 7th Army for the invasion. The plan also named the other commanders: Admiral H. Kent Hewitt for the Naval forces, Major General John D. Cannon for tactical air plans, and Brigadier General Gordon P. Saville for fighter cover and close air support. On 5 March, the American Airmen tried to jumpstart the planning process. However, when representatives from MATAF tried to meet with ground planners, the ground planners were not ready to discuss detailed plans. In spite of this difficulty, by 17 March Airmen released the first comprehensive air plan for the operation and planning again began to pick up. Although the respective American services presented their outline plans to the Supreme Allied Commander, Mediterranean, on 1 May 1944, planning again began to lag. Finally, by 7 July the political leaders decided Anvil would proceed, and planning finally went into high gear.<sup>103</sup>

In its planning, the Navy seems to have used questionable intelligence in an effort to control all naval assets for the protection of the fleet. On 1 August 1944, the Navy released its final plans for the

---

<sup>102</sup> Mediterranean Allied Tactical Air Force, *Report on Operation Dragoon*, 5.

<sup>103</sup> Paragraph based on Mediterranean Allied Tactical Air Force, *Report on Operation Dragoon*, 5-6.

invasion.<sup>104</sup> These upheld the fleet protection plans first envisioned at the end of 1943. The MACAF was to protect the fleet more than 40 miles from the shore and from there the 12th TAC would take over fleet defense. The plan's assumptions include a surprising statement, given the overall state of the Germans in southern France: "Strong and persistent enemy submarine, light surface craft, and air attacks are probable both during the passage and off the beaches." While this plan does not immediately address the operations of carrier-based aircraft, it does state that they would supplement the 12th TAC in defense of the fleet within 40 miles. It is safe to surmise that if the Navy plans assumed a strong threat from the Luftwaffe, then the naval commander would want to husband his forces for defense. To add to this, the overall command plan for the invasion indicated that the naval commander was superior to the land commander until the majority of forces was ashore.<sup>105</sup> The air plan seemed to be based on a very different view of the enemy threat and on disagreements about who should control Allied air assets.

On 4 August 1944, MATAF issued the operational plan that directed, consistent with all planning to this point, that the entire emphasis of the air effort both prior to, and after, D-Day was under the control of Maj Gen Saville. Consistent with repeated directions from Allied leaders, the plan assumes "responsibility for the provision of air cover over the assaulting forces and for close air support to the operations."<sup>106</sup> The plan then goes on to list the priorities of airpower during the invasion. Of note, the number one priority of the MATAF during the invasion was "To cause maximum destruction to enemy

---

<sup>104</sup> *Operational Navy Plan No. 1-44*, 1 August 1944, AFHR Reel A6108.

<sup>105</sup> Mediterranean Allied Tactical Air Force, *Report on Operation Dragoon*, 8.

<sup>106</sup> *Headquarters Seventh Army Field Order #1, Annex #5*, 4 August 1944, AFHRA Reel A6561.

coastal and beach defenses within the assault are with all forces available.”<sup>107</sup> Overall, the air forces were:

- 1.) To neutralize the enemy air forces on the ground and in the air.
- 2.) To disrupt enemy communications, and retard movement of enemy reserves both strategic and tactical, into the assault area.
- 3.) To attack selected specific defense installations in the assault area.
- 4.) To destroy submarine pens and sink prepared block ships in the Toulon harbor.
- 5.) To provide air cover over the assault area and shipping within 40 miles of it.
- 6.) To provide close air support to the ground forces taking part in the operation.<sup>108</sup>

The emphasis of the overall air effort was to engage the enemy on land, not to protect the fleet. Overall, the plan gave little emphasis to the use of airpower in any manner other than in direct support of ground troops.

A MATAF intelligence estimate indicated that the Luftwaffe was in no position to threaten the invasion fleet prior to its reaching the beaches.<sup>109</sup> According to the 6 August 1944 report, from 6 June to 31 July 1944 the Luftwaffe attempted only two to three attacks against Allied shipping in the Mediterranean. It further stated that a very small fighter force in the area was adapted from the practically disbanded Fighter School South. The report assumed that Allied aircraft would destroy the Luftwaffe early in the invasion to gain air superiority. The intelligence assumptions used by the Navy and both MATAF and AAF clearly differed significantly.

---

<sup>107</sup> *Headquarters Seventh Army Field Order #1, Annex #5*, 4 August 1944. AFHRA Reel A6561.

<sup>108</sup> *Headquarters Seventh Army Field Order #1, Annex #5*, 4 August 1944. AFHRA Reel A6561.

<sup>109</sup> Mediterranean Allied Tactical Air Force, *Periodic Intelligence Note No. 4: Enemy Forces In Southern France*, 6 August 1944, AFHRA Document Number 626.430-9.

## Conclusion

Operation Dragoon was a great success, but after-action reports indicate there may have been problems with airpower coordination. Most of the reports originating from the headquarters indicate that the overall control of airpower lay with the Air Task Force Commander.<sup>110</sup> However, the Air Task Force Commander issued a policy, almost immediately prior to the invasion, that naval air would support all strictly naval operations.<sup>111</sup> This airpower coordination change seems to be a policy implemented prior to the invasion rather than a planning change. An easily overlooked after action report of the Air Control Officer, located aboard the control ship U.S.S. *Catocin*, does state that on several occasions there were more “Pineapple” (on-call close air support) missions than there were aircraft available to service them.<sup>112</sup> The report then goes on to state several reasons for this problem, one of which is that carrier-based aircraft were all on missions. The report does not go on to state the reason for this, but the priority for these missions was to “provide the maximum practicable fighter protection and spotting aircraft, to provide close air support missions, [and] to provide its own protection against enemy air and submarine forces...”<sup>113</sup> Since bad weather prevented many 12th TAC aircraft from supporting the invasion and there was almost no German Naval and Luftwaffe threat, it would stand to reason that the Air Task Force Commander could direct all naval aircraft to support the invading ground forces. Either there were too many targets for the naval aircraft or they were needed to protect the

---

<sup>110</sup> Mediterranean Allied Tactical Air Force, *Report on Operation Dragoon* 22 and Headquarters 12th Tactical Air Command, *Report on Operation Dragoon*, 27 September 1944, (AFHRA Reel 6108), 5.

<sup>111</sup> Headquarters 12th Tactical Air Command, *Report on Operation Dragoon*, 5.

<sup>112</sup> United States Army Air Force, *Report of Air Control Aboard the U.S.S. Catocin “Dragoon” 2nd Air Combat Control Squadron, 1 Sep 1944*, AFHRA Doc Number 507176, 6.

<sup>113</sup> Mediterranean Allied Tactical Air Force, *Report on Operation Dragoon*, 22.

fleet from an enemy naval and air force naval intelligence thought was there, but in fact was not.

Joint planning also tended to be difficult. Politicians' indecision over the fate of Anvil/Dragoon did not give the planners an easy task, and after-action reports bear this out. Air planners were not included in all of the joint planning. The first four of 10 complaints in the 12th TAC after action report all relate to coordination between joint staffs during the planning phase of the operation.<sup>114</sup> In a much more pointed report, the MATAF recommended that, "in all cases where Air Forces have to be mounted alongside the Army, a combined control body should be formed on which the Air Force is represented and allowed to act in an executive capacity."<sup>115</sup> It seems that with geographic separation and the necessity to focus on operations in the entire theater, air planners were at a disadvantage because other services' planners evidently often did not include them.

The foundation of a successful joint air operation emanates from the centralized control of airpower. In the case of Dragoon, the initial planning document from December of 1943 was merely an outline sketch necessary to facilitate the beginning of planning. This overall plan for protecting Allied assets and attacking enemy forces remained relatively untouched in the planning process. As the invasion loomed, many of the initial plan's assumptions began to change, so much so that the assumptions used by the Navy and the 12th TAC ultimately differed significantly. This may have driven the last-minute change in the use of naval air assets to protect the fleet. Naval airpower was under the command of the Navy commander who was not necessarily interested in close air support for the army. While the Allies often discussed better planning for, and use of, air power in a joint manner, in reality there

---

<sup>114</sup> Headquarters 12th Tactical Air Command, *Report on Operation Dragoon*, 27 September 1944, AFHRA Reel 6108, 1.

<sup>115</sup> Mediterranean Allied Tactical Air Force, *Report on Operation Dragoon*, 73.

were always new problems. Even before Dragoon, the Allies solved many air-ground coordination problems in the Mediterranean Theater of Operations because of experience and careful planning. However, as many of the reports cited in this work state, some significant problems remained. These intractable planning problems have clear implications.

The most important point is that even in the best of situations, joint planning is difficult. Even if a staff spends much of its time trying to get information from others, it is still an uphill climb if not all are of the same mindset. All of the actors in Dragoon fought with each other for two years and had large budgets, armies, and staffs under their control. However, distance, workload, and attitudes made it difficult to arrive at an optimal solution for this invasion. One staff complained that while MATAF's Dragoon air planner had to plan and execute in two theaters (Italy and France) simultaneously, Army and Navy planners did not.<sup>116</sup> This allowed the Army and Navy staffs to focus completely on Dragoon and forced AAF planners to "catch up" on their own. The result was a feeling that the overall air effort was less effective.

Another implication is the importance of shared and factual intelligence during the planning process. There was no reason for the Navy to assume, as late as 1 August 1944, that there would be a significant German threat to naval assets during the invasion. Both Allied and American Army intelligence estimates on 6 August and in after-action reports indicate there was no threat. Why then did the Navy assume such a strong resistance in their planning? One possible reason was the desire to maintain naval assets under the authority of the naval commander instead of releasing them to the air commander. This would not be the first, or last, time that commanders would dispute the need for a centralized air commander. The last-minute change of authority for

---

<sup>116</sup> Headquarters 12th Tactical Air Command, *Report on Operation Dragoon*, 6.

carrier-based aircraft may indicate this. Intelligence is necessary for both adequate and timely planning. Air power is unique in its requirements because of long travel distances and limited time spent over the battlefield. Because of this, in the case of planning for air power, intelligence must be accurate, and there must be a shared agreement on both its content and meaning. Operation Dragoon shows how even a successful operation is more difficult if all planners fail to share intelligence and agree on its meaning.

## Chapter 4

### TACTICAL FIGHT: THE BATTLE OF MONTELMAR

#### **Introduction**

Finally, the Allies had an invasion in which they could highlight the solutions to all of the problems of air-ground coordination that challenged them throughout the Mediterranean campaign. At the tactical level, air-ground coordination was very important in both the planning and execution of Operation Dragoon. One specific plan, dated 16 July 1944 (approximately one month prior to the invasion), goes to great lengths to spell out the method the Allies would use to ensure coordination. As this plan looks very similar to the one used in Italy, the Allies clearly felt their prior solution was essentially correct. The coordination plan for Dragoon goes into detail about all levels of combined-arms implementation. Although the Allies spent much time on the air-ground coordination plan, it did not prevent significant problems during the drive north.

#### **The Plan for Air-Ground Coordination**

The 16 July 1944 plan incorporated the solutions about air-ground coordination arrived at from the campaigns in the Mediterranean. During the planning phase of the operation, the staff directed how the Americans should organize for the most effective air-ground coordination.<sup>117</sup> On the Army staff, an Air Support Control Section consisting of 16 officers established a liaison network between air and ground elements. This group of officers worked under the Army G-3 to process and coordinate, within Army Headquarters, all requests for air support. They also dealt with all matters dealing with potential air targets. This team also provided advice on target suitability and liaison

---

<sup>117</sup> Headquarters Seventh Army, *Air Support Plan: Section 1 Air Support Control*. 19 July 1944, 1.



officers to each supporting AAF group designated by 12th Tactical Air Command (TAC). At the corps level, an Air Section consisting of an assistant G-3, Air, and an assistant G-2, Air, handled all aerial intelligence matters through the Army G-2. He The Army G-2 arranged aerial attacks in support of the corps through the Army Air Support Control Section. Finally, on the division staff a commander would designate an officer as an assistant G-3, Air. This officer acted as an advisor to the division commander on all matters of air support and was responsible for air support from the division. In addition, he ensured that the air party servicing the division had food and medical service.

The Allies also addressed the method of air-ground coordination within separate headquarters. It directed that Army and 12th Tactical Air Command (TAC) locate their headquarters adjacent to one another. The close proximity allowed members of corresponding staffs to exchange information and made them available to discuss any immediate items of mutual interest. 12th TAC staff would hold daily operations conferences to discuss the activities of the previous 24 hours and plans for the immediate future (24-48 hours). At this meeting, various Army and Air Force staff members would summarize the ground situation, the air situation, and the enemy. The 12th TAC chief of staff would then accept or reject individual Army air missions. After this meeting, the 12th TAC staff prepared a briefing, passed through Army Air Support Control, detailing the effort brought to bear on the requested missions. The 12th TAC staff would then pass the briefing to the Army for proper dissemination to subordinate units.

The issue of fratricide was important to the Allies, and they included procedures within the plan to reduce such a possibility. Throughout the campaign in the Mediterranean, air and ground leaders strove to create a delicate balance between supporting the ground troops with CAS and not causing fratricide. This was resolved with the implementation of a BSL. This notional boundary was located in front of

the ground troops and represented the closest range at which friendly aircraft could attack while minimizing potential fratricide. As the troops moved north during Dragoon, the line would move constantly in front of them to ensure that friendly aircraft would not mistake them for enemy troops. In addition, the BSL ensured that bombs would not explode too close to friendly troops. The plan called for Army liaisons assigned to AAF units to control the location of the BSL. Each Air Force wing, group, and separate squadron operating on the Army front had its own Army liaison section. These Army liaisons had three missions. The first was to keep air units and individual aircrew members informed of the ground situation, including the ground forces' immediate intentions. The second was to keep the Army Headquarters advised of any information reported by aircrews that would have direct bearing on the ground situation. Third, the liaisons insured that each AAF group and squadron knew the location of the current BSL.

Forward Army elements also had a role in coordinating air support. These forward elements were responsible for keeping the Army Air Support Control Section informed of the ground situation. Based on what they observed, they would then submit requests for air operations, designate and prioritize targets, and state the results expected. The ground commanders would then take these reports to adjust the air plan and change the BSL if needed. The forward Army elements also disseminated the staff's air plan and kept Army units informed of changing air plans, activity, and results.

It was with the above plan of air and ground coordination that the Allies pushed north from the beach.<sup>118</sup> Overall, the invasion went exceptionally well due to the lack of a strong German resistance, overwhelming Allied superiority in men and materiel, and a sound

---

<sup>118</sup> Wesley Frank Craven and James Lea Cate, ed. *The Army Air Forces in World War II*, Vol. 3, 430.

joint/combined operational plan. By D+30 the invasion force was at a location where the plans called for them to be by D+120. This rapid advance caused problems for both logistics and air support.<sup>119</sup> The Allies' rapid advance also drove the BSL well in front of the ground troops to ensure they were always relatively safe. This system worked well as long as the troops were moving, but when they slowed down because of a battle, the BSL, just as it did in Italy, tended to be in the wrong place. Only someone on the ground could make the plight of the ground troops known and drive home the need to adjust the BSL. The plan for Operation Dragoon should have provided a framework for this coordination, but it may have failed at the Battle of Montelimar.

### **Montelimar**

The Allies needed to stop the retreating German troops and they chose to do so near the French town of Montelimar. This is near highway N-7, which followed the Rhone River north out of the immediate area of operations and, ultimately, towards the German troops engaged against the Allies breaking out of Normandy. The German Nineteenth Army was retreating rapidly up the highway when the American Army's Task Force Butler engaged them. The Americans took up positions to the east of the highway and began to attack the Germans with artillery while putting up roadblocks. Suddenly, a very fluid campaign came to a temporary stop.

After the initial skirmishes on 21-22 August 1944, the Americans and the Germans entered a pitched battle that would determine the latter's fate. On 22 August, a single battalion of the American 141st Infantry joined with Task Force Butler in an attempt to enter Montelimar while the Germans continued up N-7. The Germans counterattacked American positions along the Roubion creek bed, where they ultimately

---

<sup>119</sup> Jeffery J. Clark and Robert Ross Smith, *United States Army in World War II, The European Theatre of Operations, Riviera to the Rhine*, 200.

faltered. During this time the Americans continued to use artillery to hamper the Germans as they moved north on N-7. The Americans temporarily cut off N-7 with roadblocks but the Germans broke through them, pushed north and threatened encirclement by a drive east towards the towns of Allex and Grane. Throughout the engagement, both sides reinforced but they both had intelligence and logistical problems. Finally, the battle ended on 28 August with the withdrawal of German troops. The Americans suffered 1,575 casualties. Some infantry regiments, particularly the 141st and 143d, bore the brunt of the fighting. According to American intelligence, German losses were considerably higher—perhaps 20 percent of the forces that originally engaged in the battle. By all accounts, the battle for Montelimar was difficult and bloody for both sides.

Airpower seems to have been almost totally absent from the battle. Craven and Cates' writings on of airpower during Dragoon barely mention the battle. The Army history, written by Clarke and Smith, does mention airpower's role during the battle by stating that, "Perhaps the most remarkable feature of air operations in the southern France campaign was the total absence of normal close air support activities involving the use of air-ground liaison teams...the problem was brought home most forcefully during the battle at Montelimar."<sup>120</sup> It seems difficult to imagine that, after so much coordination, airpower failed to support ground troops during such a bloody battle.

The problem appears to have been with the BSL. During the battle for Montelimar, the BSL was placed well forward of the troops because of the fluidity of the situation. The location of the BSL drove 12th TAC to focus on targets "west of the Rhone and north of Drome, all well outside the immediate ground battlefield: meanwhile the ground commanders

---

Jeffery J. Clark and Robert Ross Smith, *United States Army in World War II, The European Theatre of Operations, Riviera to the Rhine*, 215.

would doubtlessly have preferred a few tactical air strikes against German infantry and armor in the Hill 300 and Bonlieu areas.”<sup>121</sup>

Perhaps 12th TAC thought they had good reason to locate the BSL where it was. Both the Germans and the Americans needed to reinforce. 12th TAC was trying to help the Americans by interdicting German men and material before they reached the front. In fact, 12th TAC goes as far as taking credit for the success of the battle in Montelimar. The after-action report states that, “An enemy column near Montelimar blocked by bombed bridges and an encircling ground force maneuver was almost totally destroyed by attacking fighters and fighter-bombers. This was again conclusive proof that under conditions of air superiority the air arm can deny the use of roads to the enemy in daylight and restrict his mobility.”<sup>122</sup> This assessment does little to address the pressing issue of the direct support of engaged ground troops. Although air assets were destroying German equipment away from the fight, ground commanders needed them immediately over the battlefield. Perhaps the Combined Operations Headquarters had a better assessment of air-ground coordination during the battle, when they said of the BSLs: “Through laying down a bomblines for considerable periods, it became necessary to put it well forward and the armed reconnaissance line even further forward. As a result, it was felt that these precautions at times erred too much on the side of safety.”<sup>123</sup> This statement, not declassified until 1973, helps us understand CAS coordination issues during the battle of Montelimar and many engagements in the Mediterranean theater.

---

<sup>121</sup> Jeffery J. Clark and Robert Ross Smith, *United States Army in World War II, The European Theatre of Operations, Riviera to the Rhine*, 215.

<sup>122</sup> Mediterranean Allied Tactical Air Force, *Report on Operation Dragoon*, 57.

<sup>123</sup> Combined Operations Headquarters, *Bulletin Y/42: Operation Dragoon, December 1944*, AFHRA reel 626.430-9, 21.

## Conclusion

Airpower coordination is difficult. The Allies, and more specifically the Americans, fought through problems for over two years during the hard campaigning in the Mediterranean. They put an intricate system of reporting procedures in place to ensure that both air and ground commanders knew of situations as they developed during the battle. However, even with years of combat experience, familiar commanders, and the implementation of many “lessons learned,” there were still difficulties in effectively combining ground and air elements. As the battle for Montelimar shows, ground commanders need the direct support of air power, even with total control of the skies. The operational scheme used in the invasion should have provided for that, but there were some serious flaws.

While many of the commanders in Dragoon talked to each other during planning, they did not take into account lessons learned by commanders in other theaters. Major General Pete Quesada, commander of 9th TAC, experienced many problems with fratricide caused by his aircrews. During the planning for Operation Overlord, Quesada communicated with Cannon, who was leading the air war in Italy. Quesada inquired about the hard-fought lessons, both good and bad, about air-ground coordination in Italy. Quesada was so concerned about coordination that he even went so far as sending 227 officers to Italy to absorb Italian campaign lessons and apply them to the northern European theatre.<sup>124</sup> . While Quesada did use the lessons from Italy in making his plan for the invasion, Army troops still endured much fratricide due to aircrews’ confusion about the BSL during the breakout from Normandy. Quesada finally solved the delicate problem of coordinating the BSL by putting radios in the tanks of the forward troops

---

<sup>124</sup> Thomas Alexander Hughes, *Overlord: General Pete Quesada and the Triumph of Tactical Air Power in World War II*, (New York, NY: The Freepress, 1995), 128-139.

so that they could talk to the CAS aircraft overhead, with great success.<sup>125</sup> I found no indication that Quesada spoke with Saville about these problems of coordination during Operation Cobra. Quesada seemed to communicate with Cannon; however, with a two-front air war to deal with, Cannon probably did not get into details about Quesada's BSL problems when talking to Saville. There is no indication that the Americans attempted to address the BSL location problems in the same effective way as Quesada. The lessons learned from Operation Cobra should have flowed south to the planners of Operation Dragoon given that the former commenced three weeks prior to the latter. This would have allowed CAS aircraft to support the ground troops with a properly positioned BSL and aircrew-tank coordination on the ground.

While the organization conceived to coordinate air and ground efforts was relatively sophisticated, it did have a serious flaw in terms of immediate situational updates. The Army officer attached to the 12th TAC provided the location of the BSL to air commanders while giving the Army Headquarters current updates from the pilots.<sup>126</sup> In other words, Army Headquarters actually created the BSL and expected a complicated coordination procedure to rectify any of its positional problems.

Nonetheless, by the time of Dragoon, the organization of the AAF had changed significantly and many Airmen who entered the war in 1942 would not have recognized it. Many positive changes occurred during the efforts to coordinate air and ground actions, but not always with optimum results. While meticulously planned for Operation Dragoon, control of the air effort still had to be coordinated too far from the battlefield for airpower to adapt adequately to rapidly changing situations. Even in Dragoon, the Army should have pushed the control

---

<sup>125</sup> Hughes, *Overlord*, 205-226.

<sup>126</sup> Headquarters Seventh Army, *Air Support Plan: Section 1 Air Support Control*. 19 July 1944, 2.

of CAS elements down to the lowest level: the commander in immediate contact with the enemy and an air liaison with a simple radio, for instance, would have made a huge difference. For this reason, the air and ground coordination solution initially conceived during the battles in Italy and used during Dragoon was only partially successful. Even after two years of lessons during the battles in the Mediterranean, air and ground planners still failed to meet all the critical needs of the soldiers in battle.



## **Conclusion**

*There is nothing new under the sun*

Ecclesiastes

For me, the origin of this paper was a need to come to a better understanding of how to plan for and execute a joint or coalition air war. However, the framework and questions posed at the beginning took me on a different path. Hopefully, the reader begins to understand, as I did, that airpower in the MTO became a lens to examine the larger, and more important, issue of joint operations as a whole. While I have identified only a fraction of the pitfalls of a joint construct of war, joint warfare is possible only through significant personal struggle at both the very highest levels of command and down to the units at the front line. Senior commanders need to identify and value the need for joint operations and, more importantly, act accordingly.

It is easy for a modern military strategist to discount the results of a study of operations during World War II. This arises from the assumption that the fundamentals of war have changed and lessons from the last war will lead to mistakes when applying them to future operations. Today's fiscally constrained military environment little resembles the MTO where manpower and equipment were plentiful. Technology has rapidly changed the way we fight wars, and military officers often refer to the weapons, tactics, organizational constructs, and command-and-control arrangements of past conflicts as relics of wars that we will never fight again. However, our distance from these operations allows us to move past the heated debates and hurt feelings so often associated with conclusions drawn more hastily from modern wars. World War II provides us many examples and lessons that will help us fight today's wars, without the risk of losing the message in the feelings of the moment.

For instance, Operation Anaconda in March 2002, like Operation Anvil, featured a major struggle with joint planning. Initially, planners envisioned Operation Anaconda as a ground maneuver against a small force of insurgents in Afghanistan. For this reason, ground planners devised a plan without first including air planners. Later, they finally did bring air planners into the fold, but by that time, many options available to them were no longer available or relevant. While the two services still engage in heated debate about what really happened during Operation Anaconda, one thing is certain: The joint planning problems that plagued Operation Anvil also plagued Anaconda.<sup>127</sup> Even with a very concerted effort to train and familiarize troops with fighting in a joint environment, problems arose. If the planning for Operation Anvil struggled, when the Allies had years of experience together and plenty of time and material, then how can we expect the planning for future operations to run smoothly? Currently, the answer is to try to train people better to understand joint concepts and planning processes. Maybe Operation Anvil provides a better answer. Maybe even in the best situations, joint operational planning requires massive amounts of effort and will almost invariably result in sub-optimal solutions. Although this answer seems obvious, the partisan bickering after Operation Anaconda proves that it is not as obvious as we would like.

---

<sup>127</sup> Austin Bay. "A Full Report on Operation Anaconda: America's First Battle of the 21<sup>st</sup> Century. A Complete After Action Interview with Col Weircinski." *Strategy Page*, June 27, 2002. Online. Apr. 21, 2005. <http://www.strategypage.com/onpoint/articles/20020627.asp> (accessed 4 May 2009).; Elaine Grossman, "Anaconda: Object Lesson in Poor Planning or Triumph of Improvisation?" (Inside Washington Publishers, Aug. 12, 2004), [http://www.d-n-i.net/grossman/anaconda\\_object\\_lesson.htm](http://www.d-n-i.net/grossman/anaconda_object_lesson.htm) (accessed 4 May 2009); Elaine Grossman, "Was Operation Anaconda Ill-Fated from Start?: Army Analyst Blames Afghan Battle Failings on Bad Command Set-Up." July 29, 2004. Online. Apr. 20, 2005. Available at: [http://www.d-n-i.net/grossman/army\\_analyst\\_blames.htm](http://www.d-n-i.net/grossman/army_analyst_blames.htm) (accessed 4 May 2009); Hebert, Adam J. and Suzann Chapman. "After Leaving USAF Out of Anaconda Planning, Army General Blasts Air Support." *Air Force Magazine*, Vol. 85, no. 11, Nov. 2002, p. 14; Headquarters of the U.S. Air Force, *Operation Anaconda: An Air Power Perspective*, February 7, 2005, 5–7, 40, 53, available at [www.af.mil/shared/media/document/AFD-060726-037.pdf](http://www.af.mil/shared/media/document/AFD-060726-037.pdf) (accessed 4 May 2009).

At all levels, control of assets continues to be a problem. In 1991, during Operation Desert Storm, a battle raged between air and ground commanders about the appropriate placement of the Fire Support Coordination Line (FSCL). The FSCL is the modern equivalent to the BSL developed in the MTO and used during Operation Dragoon. Although the modern debate also centered on the positioning of the line in relation to ground troops,<sup>128</sup> the debate about control during Operation Desert Storm switched. The ground commanders thought that they were better suited to control their own order of battle and wanted to clear as much room as possible to allow the assets under their direct control to engage the enemy. Although technology allowed a close integration of assets, commanders felt that the other service was both unwilling and unable to understand and address particular needs. When looking at Operation Desert Storm, one has to ask why patriotic Americans cannot come to an agreement over the correct way to integrate air and ground assets. Trust seems to be the most important part of the equation in complex and chaotic joint operations. Perhaps trust is more important than most military personnel realize.

Perhaps, therefore, the true lesson of Operation Anvil/Dragoon is that of building interservice trust—not of the kind that a military officer gets by engaging in combat with other members of the same service, but the kind that officers get when they are confident in the system. The system of joint warfighting has come a long way but is still in essence a combined-arms effort. The disparities between the environments within which ground and air commanders operate only amplify their belief that one can operate without the other. After two years and rivers of blood, in the MTO ground and air commanders still did not trust that they had

---

<sup>128</sup> Andrew D. Dembosky, *The Direct Attack On "Direct Attack"* (Maxwell AFB, AL: AU Press: 2005).; John R. M. McDaniel, *C2 Case Study: The FSCL in Desert Storm*, National Defense University, Command and Control Research Program, March 8, 2001, available at [http://www.dodccrp.org/sm-workshop/pdf/C2\\_FSCLdoc.pdf](http://www.dodccrp.org/sm-workshop/pdf/C2_FSCLdoc.pdf). (accessed 4 May 09).

actually created a truly joint way to fight war. Until we can move beyond the basic concept of combined arms and on to a much more sophisticated level of true joint warfare, we will never trust the system and are likely to repeat many of the failures of the past.

## BIBLIOGRAPHY

### **Academic Papers**

Boddie, James W., Jr., "Ammunition Support For Operation Dragoon, the Invasion of Southern France—Could We Do It Today?" Washington, D.C.: U. S. Government Printing Office, 1987.

St. Clair, Matthew G., "The Twelfth U.S. Air Force: Tactical and Operational Innovations in the Mediterranean Theatre of Operations, 1943-1944." Maxwell Air Force Base, AL: Air University Press, June 2003.

### **Articles**

Bay, Austin, "A Full Report on Operation Anaconda: America's First Battle of the 21<sup>st</sup> Century: A Complete After Action Interview with Col Weircinski." Strategy Page, June 27, 2002. Online. Apr. 21, 2005. <http://www.strategypage.com/onpoint/articles/20020627.asp> (accessed 4 May 2009).

Fullenkamp, Len, "Review of Retreat to the Reich: The German Defeat in France, 1944" *Parameters* US Army War College Quarterly, Winter 2001-02, Vol. XXXI, No. 4.

Grossman, Elaine, "Anaconda: Object Lesson in Poor Planning or Triumph of Improvisation?" (Inside Washington Publishers, Aug. 12, 2004), [http://www.d-ni.net/grossman/anaconda\\_object\\_lesson.htm](http://www.d-ni.net/grossman/anaconda_object_lesson.htm) (accessed 4 May 2009).

-----, "Was Operation Anaconda Ill-Fated from Start?: Army Analyst Blames Afghan Battle Failings on Bad Command Set-Up." July 29, 2004. Online. Apr. 20, 2005. Available at: [http://www.d-ni.net/grossman/army\\_analyst\\_blames.htm](http://www.d-ni.net/grossman/army_analyst_blames.htm) (accessed 4 May 2009).

Hebert, Adam J. and Suzann Chapman. "After Leaving USAF Out of Anaconda Planning, Army General Blasts Air Support." Air Force Magazine, vol. 85, no. 11, Nov. 2002, p. 14.

McDaniel, John R. M., "C2 Case Study: The FSCL in Desert Storm" National Defense University, Command and Control Research Program, March 8, 2001, available at [http://www.dodccrp.org/sm-workshop/pdf/C2\\_FSCLdoc.pdf](http://www.dodccrp.org/sm-workshop/pdf/C2_FSCLdoc.pdf). (accessed 4 May 09).

Spaatz, Carl A., Gen Ret., "Leaves from My Battle of Britain Diary," *The Air Power Historian* 4, no. 2 (April 1957), 66-75.

## Books

- Bonn, Keith E., *When the Odds Were Even: The Vosges Mountains Campaign, October 1944-January 1945*, New York, NY: Random House, 2006.
- Breuer, William B., *Operation Dragoon: The Allied Invasion of the South of France*. Novato, CA: Pesidio Press, 1987.
- Clarke, Jeffery J, and Robert Ross Smith, eds. *The United States Army in World War II, European Theatre of Operations: Riviera to the Rhine*. Washington, D.C.: U. S. Government Printing Office, 1993.
- Craven, Wesley Frank and James Lea Cate, eds. *The Army Air Forces in World War II, Vol 1, Europe: Plans and Early Operations January 1939 to August 1942*. Chicago, IL: The University of Chicago Press, 1948.
- , *The Army Air Forces in World War II. Vol. 2,. Europe: Torch to Pointblank August 1942 to December 1943*. Chicago, IL: The University of Chicago Press, 1949.
- , *The Army Air Forces in World War II. Vol. 3, Europe: Argument to V-E Day January 1944 to May 1945*. Chicago, IL: The University of Chicago Press, 1951.
- Dembosky, Andrew D., *The Direct Attack on Direct Attack* Maxwell AFB, AL: Air University Press: 2005.
- Futrell, Robert Frank, *Ideas, Concepts, Doctrine: A History of Basic Thinking in the United States Air Force 1907-1964. Volume I* Maxwell AFB, AL: Air University Press, 1989.
- Garland, Albert N., and Howard McGaw Smyth, eds, *The United States Army in World War II, European Theatre of Operations: Sicily and the Surrender of Italy*, Washington, D.C.: U. S. Government Printing Office, 1993.
- Gordon, Arthur, Maj, "191 Days of Desert War" in *World War II in the Air: Europe*, ed. Major James F. Sunderman, New York, NY: Franklin Watts, 1963.
- Hallion, Richard P. *Strike From the Sky: The History of Battlefield Air Attack, 1911-1945*. Washington D.C.: Smithsonian Institution Press, 1989.

- Hansel, Haywood S., *The Air Plan that Defeated Hitler*. Washington, D.C.: U. S. Government Printing Office, 1975.
- Harrison, Gordon A., *Cross-Channel Attack, United States Army in World War II, European Theater of Operations*. Washington, D.C.: U. S. Government Printing Office, 1951.
- Howard, Michael, *The Mediterranean Strategy in the Second World War*, London: Greenhill Books, 1968.
- Holly, Irving B., Jr., *Buying Aircraft: Material Procurement for the Army Air Forces, US Army in World War II*, Washington, D.C.: U. S. Government Printing Office, 1964.
- Howe, George F., *Northwest Africa: Seizing the Initiative in the West* Washington, D.C.: U. S. Government Printing Office, 1957.
- Hughes, Thomas Alexander. *Overlord: General Pete Quesada and the Triumph of Tactical Air Power in World War II*. New York, NY: The Free Press, 1995.
- Kane, Robert B., *Disobedience and Conspiracy in the German Army, 1918-1945*. Jefferson, NC: McFarland, 2002.
- Kimball, Warren F., ed., *Churchill & Roosevelt: The Complete Correspondence*, Vol. 2, *Alliance Forged, November 1942-February 1944*, Princeton, NJ: Princeton U. Press, 1984.
- Kitchen, Martin, *The Third Reich: Charisma and Community*, Upper Saddle River, NJ: Pearson Education, 2008.
- Loewenheim, Francis L., Harold D. Langley, Manfred Jonas, eds. *Roosevelt and Churchill: Their Secret Wartime Correspondence*, New York, NY: Saturday Review Press, 1975.
- Mark, Eduard Maximilian, *Aerial Interdiction: Air Power and the Land Battle in Three American Wars*. Washington, D.C.: U. S. Government Printing Office, 1994.
- Mitcham, Samuel W., Jr., *Retreat to the Reich: The German Defeat in France, 1944*. Westport, CT: Praeger, 2000.
- Molony, C. J. C., et al, *The Mediterranean and the Middle East, United Kingdom Military Series*, Vol. 5, *The Campaign in Sicily 1943, and the Campaign in Italy, 3d Sep 1943 to 31st Mar 1944*, London: Her Majesty's Stationary Office, 1973.

- Morrison, Samuel Eliot, *Strategy and Compromise*. Boston, MA: Little, Brown, and Company, 1958.
- Orange, Vincent, "Getting Together: Tedder, Coningham, and Americans in the Desert in Tunisia, 1940-1943" in *Airpower and Ground Armies: Essays on the Evolution of Anglo-American Air Doctrine*, ed. Daniel R. Mortensen. Maxwell AFB, AL: Air University Press, 1998.
- Overy, Richard J., *The Air War, 1939-1945*. Washington, D.C.: Potomac Books, 2005.
- Parrish, Thomas D., *Roosevelt and Marshall: Partners in Politics and War*, New York, NY: W. Morrow, 1989.
- Pogue, Forrest C., *George C. Marshall: Ordeal and Hope, 1939-1943*, New York, NY: Viking Press, 1966.
- Russell, Edward T. and Robert M. Johnson, *Africa to the Alps: The Army Air Forces in the Mediterranean Theater*. Washington, D.C.: U. S. Government Printing Office, 1999.
- Rust, Kenn C. *Twelfth Air Force Story in World War II*. Temple City: Historical Aviation Album, 1975.
- The 12th Over the Mediterranean*. Los Angeles: AAF Publications Co., 1947.
- Sunderland, Riley, *Evolution of Command and Control Doctrine for Close Air Support*, Washington, D.C.: U. S. Government Printing Office, 1973.
- Tzu, Sun, *The Illustrated Art of War*, translated by Samuel B. Griffith. New York, NY: Oxford University Press, 2005.
- Weiss, Steve, *Allies in Conflict: Anglo-American Strategic Negotiations, 1938-1944*. New York, NY: St. Martin's Press, 1996.
- Wilt, Alan F., "Allied Cooperation in Sicily and Italy, 1943-1945" in *Case Studies in the Development of Close Air Support*, ed. Benjamin Franklin Cooling. Washington D.C.: U. S. Government Printing Office, 1990.



## **Historical Studies**

Harry L. Coles, Jr., *Participation of the Ninth and Twelfth Air Forces in the Sicilian Campaign*, Army Air Forces Historical Study 37. Washington, D.C.: Army Air Forces Historical Division, 1945.

Mortensen, Daniel R., *A Pattern For Joint Operations: World War II Close Air Support, North Africa*. Washington, D.C.: U. S. Government Printing Office, 1987.

## **Government Documents**

Headquarters of the U.S. Air Force, *Operation Anaconda: An Air Power Perspective*, Washington, D.C.: U. S. Government Printing Office, February 7, 2005, 5–7, 40, 53, available at [www.af.mil/shared/media/document/AFD-060726-037.pdf](http://www.af.mil/shared/media/document/AFD-060726-037.pdf) (accessed 4 May 2009).

U. S. Army Field Manual 31-35, *Aviation In Support of Ground Forces*, Washington, D.C.: War Department, 9 April 1942.

War Department Field Manual FM 100-20, *Command and Employment of Air Power*, Washington, D.C.: War Department, 1943.

## **Primary Sources: Planning**

Memorandum by Maj Gen Delos C. Emmons to chief of staff, Army, 25 Sept 1940.

Letter from Col Carl A. Spaatz and Col Frank O'D. Hunter to Military Intelligence Division, War Department General Staff, Organization Headquarters Fighter Group, 21 Aug 1940.

Message CN-IN-S513, "Algiers to War for CCS from Eisenhower," NAF 207, 11 April 1943.

DOC AIR 23/1573Report, Air Support in the Salerno Area, Oct 1943, Public Record Office.

Letter from Maj Gen Henry H. Arnold to chief, Ordnance, Urgency of Bombing Flare Development, 7 Sep 1940.

Letter from Robert P. Patterson, Assistant Secretary of War to William S. Knudsen, Four Engine Bombers, 17 Oct 1940.

Doc BX-13968 Letter from Allied Force HQ, Advance Command Post to War Department, Problems with Anvil planning, 16 July 1944.

Doc MAAF 183 Army Commanders Intent, 23 June 44.

Doc TAF/65/18/1/AIR Copy 19 HQ MATAF Operational Instruction No. 2, 7 July 1944.

Doc TAF/65/AIR Copy 16 MATAF Operation Anvil Operational Directive no. 4, 31 Jan 1944.

Doc TAF/65/AIR Copy 10 MATAF Amendment List No.1 to Operational Directive No. 1 Dated 30th January, 1944, 10 Feb 1944.

Doc TAF/65/AIR Copy MATAF Operational Directive No. 2, 31 Jan 1944.

Doc TAF/65/AIR Copy 19 MATAF Operational Directive No. 6, 3 Mar 1944.

Doc TAF/182/ORG Administrative Briefs, 15 July 1944.

Doc TAF/65/18/AIR MATAF Outline Plan: Operation Anvil, 6 July 1944.

Letter from Commander 12th AF Commander to Col Perry, Disagreement of Details of Signals Plan for Anvil, 2 July 1944.

Letter From Colonel Hale to General Marriner, Disagreement of Details of Signals Plan for Anvil, 7 July 1944.

DOC X-1065 HQ Seventh Army Anvil Outline Plan, 13 July 1944.

*Operational Navy Plan No. 1-44*, 1 Aug 1944.

### **Primary Sources: Execution and After-Action Reports**

Doc 621.549-1 Report From Gen. Eaker to Gen. Arnold, "Doctrine, Mediterranean Theater of Ops," 18 May 1944.

Doc 626.43009 Mediterranean Allied Tactical Air Force Report on Operation Dragoon, 1 Nov 1944.

HQ 12th Tactical Air Command Report on Operation Dragoon, 27 Sep 1944.

Study to show the Manner in which MATAF carried out Dragoon Plan, 10 August 1944.

Doc 626.430-9 Combined HQ Bulletin Y/42: Operation Dragoon, Dec 1944.

Report of Air Control Aboard USS Catoctin, 1 Sep 1944.

HQ 42d Bomb Wing report on Execution of Dragoon, 16 Oct 1944.

DOC 626.430.9 12th TAC Fights Two Simultaneous Campaigns: The Invasion Of Southern France and The Conclusion of Rome-Arno (July-September 1944), July-Sep 1944.

DOC X1317 HQ Seventh Army Field Order #1 (Anvil), 29 July 1944.

Letter from Maj Boyden to Colonel Young, Report on trip to TAF and 12th TAC, 2 Aug 1944.

Annex A To Report On Planning for Operation Anvil, Unknown Date.

Doc. 650.057-3 History of the 12<sup>th</sup> Air Force, Vol.1, 1942-1945.

Doc. 680-549-2 HQ, MTO, Lessons Learned, Italian Campaign, 1 February 1944-30 September 1944.